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ABSTRACT

Section 1203 of the Education Amendments of 1978 mandated the undertaking of studies concerning the adequate financing of elementary and secondary education in the 1980s. Created to carry out this mandate, the School Finance Project established as one of its goals reporting to Congress on issues implicit in funding educational adequacy. Several educational authorities were asked to develop alternative definitions of educational adequacy that could be applied when assessing the adequacy of educational finance. The educational needs of regular school pupils, pupils with special needs, and preschool pupils were to be considered. The aspects of educational adequacy to be explored included the philosophical considerations implicit in definitions, the political feasibility of adopting measures of adequacy, the technical problems associated with implementing a program of educational adequacy, and the prospects for achieving adequate educational financing in the coming decade. This document presents 15 of the resulting 16 reports (the 16th published separately), written from the points of view of several educational specialties: the economics of education, law and education, educational administration, education and politics, learning and measurement, the philosophy of education, anthropology and education, and the history of education. (Author/PGD)

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Adequate Education: Issues in its Definition and Implementation

School Finance Project
Working Papers
1982

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EA 015 442-458

Preface

Papers contained in this compendium were prepared for the School Finance Project in the U.S. Department of Education. This project was established following the enactment of Section 1203 of the Education Amendments of 1978, P.L. 95-561, which required that studies be conducted on the financing of public and private elementary and secondary education in the United States. One provision of this section calls for the study of the prospects for adequate funding during the 1980s. In order to study these prospects, one had first to develop the measuring of adequacy in education.

A group of educators, each with an expertise in some aspect of education ranging from the philosophy of education to educational administration was invited to explore the concept of educational adequacy. This group has produced a series of papers that highlight various dimensions of educational adequacy. While no consensus emerges on its definition, the authors have provided enumerable insights into what educational adequacy entails and have illiminated a number of issues relating to its meaning or its implementation.

Esther O. Tron
Project Officer

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ED226490

AN INTRODUCTION TO EDUCATIONAL ADEQUACY: ITS DEFINITION AND PROSPECTS FOR FUNDING

Stanley Elam

A congressional mandate in Section 1203 of the Education Amendments of 1978 directed that governmental studies be undertaken to "consider...the prospects for adequate financing of elementary and secondary schools during the next ten years." To carry out this mandate, the School Finance Project was set up, first in the Office of Education and then (1980) in the new Department of Education.

One goal of the project was to report to the U.S. Congress on issues implicit in funding educational adequacy, as seen by authorities in various educational specialties.

Over the past six months (this is written in May 1982), I have been reading and editing the fifteen papers generated by the project. I have been impressed by their scholarly competence and pleased at the scope and variety they represent. Although all of these authorities were asked to address the same tasks, their different backgrounds and specialties ensured widely different approaches.

Listed by specialties, the contributors are:

Economics of Education--Lascelles Anderson, Harvard University; Martin Carnoy, Stanford University; Henry M. Levin, Institute for Finance and Governance, Stanford University; Douglas Windham, State University of New York, Albany; and W. Norton Grubb, University of Texas, Austin.

Law and Education--Martha McCarthy, Indiana University; Arthur Wise, the Rand Corporation. (McCarthy's paper, a major work based on a wide-ranging study, is being published separately in September 1982 as a monograph in the distinguished Phi Delta Kappa Educational Foundation series. An abstract of it appears at the end of this introductory chapter.)

Educational Administration--David A. Bennett, deputy superintendent of schools, Milwaukee, Wisconsin; Joseph M. Cronin, former superintendent of public instruction, state of Illinois, now president, Massachusetts Higher Education Assistance Corporation; Nolan Estes, former superintendent, Dallas (Texas) Independent School District, now with University of Texas at Austin; Richard Paul Koeppe, superintendent, Cherry Creek School District, Colorado; and Edward L. Whigam, former superintendent, Dade County Schools, Florida, now with the University of Alabama at Birmingham.

Education and Politics--James Guthrie, University of California, Berkeley.

Learning and Measurement--Annegret Harnischfeger, Northwestern University, Evanston, Illinois.

Philosophy of Education--Maxine Greene, Teachers College, Columbia University.

Anthropology and Education--Harry Wolcott, University of Oregon.

History of Education--Marvin Lazerson, University of British Columbia.

Each of these specialists was asked to develop what he or she considers an appropriate definition of adequacy for education finance. Quoting from the work statement, "He/she shall consider all pertinent aspects of what constitutes financial adequacy for the education of regular school pupils, pupils with special needs (including the gifted and talented), and for preschool-age children." Aspects of educational adequacy to be explored included (1) philosophical considerations implicit in any definition of adequacy; (2) political feasibility of adopting a measure of adequacy; (3) technical problems in implementing a program of educational adequacy; and (4) prospects for achieving adequate education financing in the coming decade.

The work statement asked authors to devote most of their attention to twelve specific questions, as follows:

1. In what alternative ways can adequacy be defined?
2. Can current levels of expenditure be viewed as adequate under the alternative definitions?
3. In your view, are total funds available for elementary and secondary education adequate but problems persist in the equity in the distribution of resources?
4. Are current measurement tools reliable for determining adequacy?
5. Can and/or should any level of funding or achievement test results be certified as adequate?
6. Is there any evidence that suggests that current funding levels are not adequate?
7. Should a program of educational adequacy recognize differences in pupil characteristics?
8. Should the concept of financing adequate education recognize differences in state/local ability to pay and in state/local tax efforts and other features such as local cost differences and the cost of providing adequate education in urban or rural environments?
9. What level(s) of government should assume responsibility for financing adequate education? What share should each provide?
10. What are the prospects for funding of an adequate education in the forthcoming decade?
11. Are projections of past financial trends a reliable guide to the prospects for adequate financing of education?
12. What are the implications for a federal role in your approach to achieving educational adequacy?

It is not my purpose in a brief introduction to summarize or synthesize the efforts of these fifteen experts. In any case, the disparity of approaches, conclusions, and recommendations would permit only limited generalization. In my judgment, the major importance of this compilation lies in the fact that it is the first concerted effort of any agency to initiate a literature in an area where there was virtually none heretofore. As the work statement observes, "Reports that do exist focus on attempts to cost out a basic education program and the add-on costs for specialized programs. These students have generally been the products of educators who were charged with devising costing schemes, generally in the form of pupil weights to assist states in implementing programs of state aid. Broader issues pertaining to defining and funding adequate education programs were in general not addressed."

These broader issues are successfully addressed, I believe, in the fourteen papers presented here and in the McCarthy monograph. My chief function, as a specialist in communication, has been to help some of the authors clarify or shorten their presentations. I do, however, wish to offer certain opinions and limited data that bear directly or indirectly on the issues at hand. The first has to do with the need for consensus in a definition of educational adequacy, which all of the authors herein acknowledge as a prerequiste to any intelligent or intelligible estimate of the cost of financing an adequate education. Yet it is, they contend, virtually impossible to develop. There are a variety of reasons for this difficulty, but the most significant is absence of public consensus on the purposes of education, once one has gotten past the glittering generalization stage. The difficulty of achieving consensus is, it seems, inversely proportional to the level of specificity one seeks. This principle is borne out in the history of a number of recent state/local goals and purposes projects, one of them sponsored by Phi Delta Kappa since 1972. Wilmer Burgher, who distributes the PDK "Educational Planning Model," notes that it is relatively easy to get 60 or more laypersons representing different community interests to agree on the priority that schools should attach to a list of eighteen goals statements. These statements are quite general: e.g., "learn how to be a good citizen," "develop a desire for learning now and in the future," "develop skills in reading, writing, speaking, and history," and "develop pride in work and a feeling of self-worth." The group process used in the project is so effective that completion rarely requires more than four hours. It is in the later stages of a three-phase process, when goals statements must be translated into an operating program and budgeted, that things begin to fall apart. Then, the process tends to raise more questions than it answers. For example: What evidence do we have that formal public education of the familiar type at acceptable cost can deliver satisfactory levels of "desire for learning now and in the future"? Even a low-level cognitive goal of skill in the basics seems unattainable. After 130 years of struggle toward "universal, free public education," the Department of Education now informs us that one of every five Americans is still "functionally illiterate," which means that he or she cannot read job notices, change a dollar bill, shop, locate needed services or understand basic concepts such as insurance.

In essense, then, most lists of educational purpose are wish lists, only incidentally related to a realistic assessment of what formal education can accomplish. They are a powerful reminder of the faith that all world's people have in the efficacy of education to improve their lives. The following data are instructive in this regard:

In 1960 public expenditure on education in the developed countries (as defined by Unesco) represented 4 percent of their Gross National Product. Europe and the Union of Soviet Socialist Republics spent a percentage of 4.2, while Northern America (the U.S. and Canada) registered 3.8. The developing countries, with an overall percentage of 2.3, ranged from 2.9 in Asia to 2.2 in Latin America (where private expenditures for education are relatively high in several countries). But faith in education had not peaked in 1960. But 1976 the developed countries had raised their expenditures on education as a percent of GNP by two points, reaching 6 percent (6.2 in Northern America and 5.9 in Europe and the USSR). The developing countries raised their expenditures even more rapidly, from 2.3 percent of GNP to 4.8 percent. In current market dollars, public expenditure on education in the world rose from 51 billion in 1960 to 366 billion 1976 (Carceles, 1979). People and governments place almost as much faith in education as a public good as they do in military preparedness. In 1978 they spent $480 billion for the latter (U.S. Arms Control and Disarmament Agency, 1980).

Referring to the Gallup polls of the public's attitudes toward the public schools in the U.S., Martin Carnoy remarks in this compilation that "educational adequacy is an issue in the U.S. largely because the schools are apparently not performing up to a standard that exists in the minds of the client public." It is true that, as recently as last year, Gallup's representative sample of the adult public gave their local schools only a C average, when asked to rate the schools as the schools rate students. Over the eight-year period during which Gallup has asked this question, the percentage giving an A rating fell from 18 in 1974 to 9 in 1981 (Gallup, 1981). But the average rating has remained approximately constant for the past four years, and other Gallup findings may tell something more significant about the public's faith in their schools: i.e., he discovered that confidence in the public schools was higher than in any other U.S. institution, with the exception of the church, in a rating published in 1980 (Gallup, 1980). If the cost of government services must be cut, schools would be one of the last services the public would like to see reduced and, nationally, they disapprove, 42 to 33 percent, of a cap on school budgets (Gallup, 1979). Finally, when asked how important the schools are to individual success, 82 percent of respondents said "extremely important"; only 2 percent said "not too important" (Gallup, 1980). In short, whether or not the public believes the schools are providing an adequate education, their confidence in education as a public good remains very high, and their willingness to pay for public schools is almost equally high--at least in the abstract.

Returning to the crucial question of public consensus on educational purpose and hence on adequacy, it is worthwhile to ask two questions: First, why is consensus so elusive? Second, is it necessary? One of several answers you will find to the first question in this compilation is that of Joseph M. Cronin, who spent several years in the hurly-burly of politics in the not atypical state of Illinois, serving as superintendent of public instruction. "People need more or less education, depending on community aspirations, their parents' expectations, and their own career aspirations and willingness to move," Cronin notes. "What is adequate for one community or one family will be substandard for another." Cronin offers three examples of competing views of adequacy and expresses the belief that there can be no consensus about adequate education and educational finance in the 1980s. This lack of consensus is based on conflicting views of educational purpose, he says.

Perhaps the most significant educational trend of the Seventies in America was the movement toward alternative forms of education in the public schools--i.e., education for pluralistic purposes. To some degree, the movement is based on the assumption that, before it can serve society, education must fit the individual and serve his idiosyncratic purposes. The movement is partly responsible for the growing appeal of private education, the voucher plan, and tuition tax credits. But, essentially, it reflects the fact that the American public school system that was developed between 1850 and the present has, in the words of Evans Clinchy and Elizabeth Allen Cody, "largely succeeded in accomplishing the most massive formal schooling program in the history of mankind. The system has produced--or has been instrumental in producing--the most literate and well-informed people on earth" (Clinchy and Cody, 1980).

What has happened, says Clinchy and Cody, is that this new, highly informed breed of parents--and perhaps especially the young parents of the postwar baby boom generation--is in the midst of discovering that there is no single, uniform, widely agreed-upon, indisputably "right" way to educate all children. They are discovering that the so-called experts--from academic theoreticians to practicing school administrators--simply do not agree on one approach, one curriculum, or one educational structure.

It is chiefly for these reasons that the suggestions in James Guthrie's paper in this series struck me as highly pertinent and sensible. In outline, this is Guthrie's scheme:

First, he states that the political system is not serving the individual student's needs well. Therefore, he argues for a mix of policital and market definitions of educational adequacy. That is, school clients should be given greater decision-making authority. In order to serve society, he says, the state must finance schooling through the tenth grade for literacy in the three Cs: civics, communication, and computation. But this education will not serve or satisfy all individual needs; some students will want drama, music, arts, athletics, and the like. To give individuals what is adequate for them, Guthrie proposes a system of small vouchers that would permit households to purchase appropriate education outside of state-supported schooling. Funds should be made available, he suggests, in roughly inverse proportion to household income. Beyond tenth grade, people should be guaranteed another four years of education, to be available whenever they wish.

Among the several virtues of this proposal, I believe the most important is its promise to finesse the need for consensus on certain educational goals. It would still leave to governmental authorities the determination of what kinds and amounts of education best serve the society as a whole. But education for personal development (not a negligible element in achieving a contented society, by the way) would be left almost entirely to individual or family decision.

It is possible that some kind of family choice plan will gain sufficient voter support in the Eighties to warrant at least a statewide tryout. Most of the schemes now being advocated assume that this tryout can occur only if private and parochial schools are allowed to receive government funds without coming under government control. For this reason, they cannot avoid a constitutional challenge. But we are already beginning to see a variety of models of alternative education in the public schools. Many of these are called magnet schools, and they were originally advanced as an answer to the problems of segregation. But there is no inherent reason why their chief aim should be desegregation. They could just as well march under the banner of educational adequacy.

As philosopher Maxine Greene notes in her paper in this compilation, it was Thomas Jefferson's view that the state must educate for the Republic's well-being and Horace Mann's that public education will increase material productivity and serve as the "great equalizer of the condition of man." Few will question the assertion that a pluralistic system of public schools can meet the first two of these requirements. But will it serve any better than the system we now have as "the great equalizer"? We simply do not know. But it should be noted that some education researchers (Christopher Jencks comes to mind) as well as armchair critics tend to look to regulatory bodies of government, not the schools, for this equalizing function. Jefferson himself suggested the necessity of frequent revolutions to maintain even a semblance of equality.

In any case, it now seems inevitable that public education will have a new face by the end of this decade. Congress can take a powerful role in shaping and controlling the movement toward pluralism in the schools. Or it can ignore it until we have a patchwork of experiments that will be very difficult to sort out. The role of the federal government in achieving educational adequacy concerned most of the authors in this series. Views vary greatly--from Richard Koeppe's complaint that the federal government is promoting certain "case, welfare, treatment, and social goals" under the education label, to Nolan Estes' advocacy of much stronger federal intervention to meet the heavy new demands of a rapidly changing society. By far the most useful discussion of this issue, it seems to me, is the calm analysis offered by Henry Levin under the title, **"Federal Grants and National Education Policy"**
Levin explains why the federal presence in policy making is so important in furthering the American ideal of equality. He explains clearly the advantages of various forms of federal funding: revenue sharing, general aid, categorical grants, block grants, and matching grants (see particularly his Figure 1).

In trying to gain perspective on the question of educational and financial adequacy, we need to know a great deal more than we do now about the relation between the development of different kinds of education in a society and measures of that society's quality of life. Obviously, Gross National Product, which I have mentioned in passing to indicate worldwide faith in the magic of education, is only one measure, and a very inadequate one at that. The literature of adequacy, as it grows, should examine and attempt to identify the features of education--its substance, organization, and control--that produce the motives and attitudes, and the mental and physical skills, that help build a mature culture. This examination will involve historical questions, and some of them may be in the deepest sense unanswerable. Hypotheses can be offered, of course, but one cannot rerun the events of history, changing certain variables and holding others constant. Perhaps that is why this initial effort to build a literature of adequacy has been so long delayed. In any case, the Congress and the School Finance Project deserve our thanks for having made the effort.

* * *

For a vigorously researched and highly informative report on the current status of efforts by agencies of government to establish a definition of educational adequacy, the reader should obtain a copy of What Legally Constitutes an Adequate Education, by Martha McCarthy and Paul Deignan (Bloomington, Ind.: Phi Delta Kappa Educational Foundation).

The commissioned study undertaken by McCarthy and Deignan of Indiana University involved an investigation of what legally constitutes an adequate education. The purpose of their study was to identify and analyze legislative, judicial, and administrative directives pertaining to (1) the legal basis for asserting a right to an adequate public education, (2) definitions of an adequate education, and (3) standards to assess educational adequacy. This entailed investigating federal and state constitutions, statutes, regulations, and approximately 300 court rulings as to the nature of the legal mandates (i.e., resource input, programmatic, or output) and the targets of the mandates (i.e., general population or special need students).

McCarthy and Deignan report that the judiciary traditionally has been reluctant to assess how much education is "enough" and has deferred to legislatures to determine what a minimally acceptable education entails. A few courts, however, have required legislatures to be specific in delineating their obligation to provide a "thorough and efficient" or "basic" education for all children in the state. Also, once lawmakers have specified educational rights and accompanying state responsibilities, courts have given substance to vague statutory language and have assessed whether specific educational offerings satisfy the statutory directives. Illustrative is the litigation pertaining to the educational rights of handicapped children, in which courts have ruled that particular programs must be provided in order to fulfill federal and state statutory requirements. If legislatures define more precisely what constitutes the minimum educational program to which all children are entitled, courts may become active in judging whether the programs offered in some districts are deficient and whether such inadequacies result from the state school support system.

Even with the most assertive exercise of judicial interpretive powers, however, McCarthy and Deignan note that the responsibility to give "specific, substantive content" to the state-guaranteed educational program remains with legislative bodies. Thus the major efforts to define and establish standards of educational adequacy seem likely to take place in legislative forums. To date only a few states have attempted to identify by statute the specific components of an adequate education. And these few attempts have been primarily input-oriented, with little documentation of the relationship between the prescribed programmatic features and educational goals, which are generally couched in global terms. Instead of defining education adequacy by statute, most legislatures have delegated to state boards of education the authority to prescribe numerous educational regulations, with the majority designed by state department personnel and pertaining to minimum input specifications. These requirements serve as "proxies" for a definition of educational adequacy in most states.

The use of output instead of input definitions of educational adequacy may appear more defensible, but McCarthy and Deignan report that this approach, as currently used in some states, does not offer a panacea. Without clearly stated goals for public education, the desired outcomes of schooling remain ill-defined. In many instances the goals ascribed to schools are all-encompassing, reaching far beyong resource capabilities and the sophistication of educational technology. Moreover, attempts to actually assess whether schools are attaining these goals have been confined mainly to measures of pupil academic achievement in a few skill areas that lend themselves to group-administered testing procedures.

McCarthy and Deignan note that the major federal activity in defining and establishing standards of educational adequacy for public schools has pertained to special-need students and targeted curricular areas. The federal government has not attempted to prescribe the components of an adequate general education that must be assured all children within this nation. However, federal laws, agency regulations, and court decrees interpreting the federally protected rights of special-need students have influenced state legislation, including school finance schemes. Indeed, the three programs most often receiving targeted state aid are special education, compensatory education, and vocational education, all representing recent federal priorities.

It seems likely, however, that the federal role in public education may be reduced or at least refocused during the coming decade. Thus McCarthy and Deignan observe that continuing federal leadership in championing school access and educational equity for all children cannot be assured. A "new policy of the New Right" may include priorities such as student achievement in basic skills and support for private education in place of the recent equity and access thrusts. McCarthy and Deignan suggest that the general education program (instead of targeted programs) may feel the major federal influence during the 1980s, which could in turn have an impact on state definitions and standards of educational adequacy.

McCarthy and Deignan conclude that courts, legislative bodies, and administrative agencies have not yet provided a complete answer regarding what, legally, constitutes an adequate education. However, the researchers were able to identify partial definitions of educational adequacy (in terms of resources, offerings, and/or outcomes) from various state and federal laws and regulations that prescribe standards for schools and from judicial interpretations of constitutional and statutory provisions.

REFERENCES

Carceles, G. "Development of Education in the World: A Summary Statistical Review." International Review of Education. Vol. 25, No. 4, 1979, pp. 121-66.

Clinchy, E., and Cody, E. A. "If Not Public Choice, Then Private Escape." Phi Delta Kappan. Vol. 60, No. 4, December 1978, pp. 270-73.

Gallup, G. "The 12th Annual Gallup Poll of the Public's Attitudes Toward the Public Schools." Phi Delta Kappan. Vol. 62, No. 1, September 1980, pp. 33-46.

Gallup, G. "The 13th Annual Gallup Poll of the Public's Attitudes Toward the Public Schools." Phi Delta Kappan. Vol. 63, No. 1, September 1981, pp. 33-48.

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THE CONCEPT OF EDUCATIONAL ADEQUACY IN HISTORICAL PERSPECTIVE

W. Norton Grubb

Marvin Lazerson

The adequacy of public education seems constantly under attack. From Joseph Mayer Rice's indictment in 1893 to Charles Silberman's Crisis in the Classroom of 1970, criticism of the schools has periodically erupted into a sense of crisis, a feeling that the schools fail in all their educational, social, and economic functions. The current criticisms—that the high school has become boring, irrelevant, and inadequate in preparing students for college; that colleges are turning out students who are both illiterate and "overeducated" in the sense of being unable to find decent jobs with their extra education; that schools fail to provide equality of educational opportunity; and that they cannot cope with the problems of poverty and inequality—all are part of a long legacy of dissatisfaction with public education.

In examining the current sense of dissatisfaction and in coming to some understanding of what an adequate education might be, it is critical to examine the past battles over educational adequacy and identify issues that have been persistent over the past century. Obviously, everyone is for adequate education—or at least no one can be against an adequate education. Yet complaints about adequacy persist, suggesting that Americans have failed to achieve it—or are consistently revising the standards. The persistent issues suggest what the debates over adequacy mean, since outside its historical context the adequacy concept may have little meaning.

In this paper we shall outline several continuing debates over educational adequacy, separating them into three categories: debates over funding; over resources such as teachers, buildings, and curricula; and over the expected outcomes of education. The categories are related: Reformers have argued that adequate funding is a prerequisite for both adequate teachers and acceptable outcomes, and that adequate resources are necessary to adequate outcomes. However, the relationships among the categories have never been particularly close, since reformers have also recognized that adequate funding is not necessarily sufficient to produce adequate resources or outcomes (since funds can be misapplied in many ways), and that adequate resources, however defined, do not necessarily guarantee adequate outcomes. Nor have the historical debates always taken the step of defining adequate funds and resources in terms of outcomes—by claiming, for example, that inadequate outcomes by definition imply inadequate funding or inadequate resources. Because debates over different kinds of adequacy have to some extent occurred in isolation from one another, then, we need to examine each of them individually

I. Debates Over Adequate Funding

Concern over funding elementary and secondary education has been bound up with debates over inequalities in spending levels. Shortly after 1900, several educators noticed that the reliance on financing schools from local (rather than state or federal) taxation had generated sizable spending inequalities among school districts. In School Funds and Their Apportionment, Ellwood Cubberley, one of the earliest and most influential educators concerned with financing patterns, suggested in 1905 a remedy for the inequality that has dominated to the present: the provision of state aid to local districts "in definite relation to the needs of the community and to the efforts which it makes to provide good schools and to secure the attendance of children at them" (Cubberley, 1905). Cubberley even conceived of replacing local financing with a state system of schools, an idea later championed by Henry Morrison in the 1930s and by school finance reform reformers in the 1970s under the banner of "full state funding." However, Cubberley quickly backed off from the radical revisions in financing that his concern with equalization implied; ultimately, he defined the state's responsibility as limited to providing a minimum, somehow defined:

> Theoretically, all the children of the State are equally important and are entitled to have the same advantage; practically, this can never be quite true. The duty of the State is to secure for all as high a minimum of good instruction as is possible, but not to reduce all to this minimum; to place a premium on those local efforts which will enable local communities to rise above the legal minimum as far as possible; and to encourage communities to extend their educational energies to new and desirable undertakings. (Cubberley, 1905)

The concern about inequality was thus converted into a concern for a basic minimum of education, with the proposal that states grant each district a specified amount, regardless of local resources—the "flat grant" formula of state aid to local districts. In practice, such a proposal might do nothing to establish a minimum level of spending, both because the amount of the state's grant was generally not established by considering what an adequate minimum might be and because poor districts might use the funds for tax relief (or other non-school public spending), the problem known as "substitution" that has continually plagued efforts to remedy inequalities through intergovernmental grants.

The next stage of concern over inequalities in school spending was stimulated by the writing of George Strayer and Robert Haig in Financing of Education in the State of New York (1924). Like Cubberley, Strayer and Haig noted the inequalities in expenditures among school districts, but they also recognized that provision of state aid along the lines Cubberley had proposed did not cure the problem of inequalities. They went on to suggest a different conception of what the states should do:

> In its extreme form the interpretation [of equalization of educational opportunity or equalization of school support] is somewhat as follows: The state should insure equal educational facilities to every child within its borders at a uniform effort throughout the state in terms of the burden of taxation; the tax burden of education should throughout the state be in relation to tax-paying ability, and the provision for schools should be uniform in relation to the educable population desiring education.

This description of the states' duties seemed to suggest that educational revenues ought to be completely freed from dependence on local wealth and instead ought to be a function of local tax effort--precisely as has been proposed in the "district power equalizing" plan associated with John Coons, William Clune, and Stephen Sugarman (1970) and with the Serrano v. Priest case. However, like Cubberley, Strayer and Haig immediately backed away from the radical implications of their view:

> Most of the supporters of this proposition, however, would not preclude any particular community from offering at its own expense a particularly rich and costly educational program. They would insist that there be an adequate minimum offered everywhere, the expense of which should be considered a prior claim on the state's economic resources.

The program of state aid with which Strayer's and Haig's names were associated became known as the "foundation plan," since it was an effort to establish minimum (or "foundation") levels of spending below which no school district would fall. In practice, this was to be accomplished by distributing state aid according to a foundation formula:

$$S_i = F - t \cdot P_i$$

where S_i represents state aid per pupil in a specific district, F is the foundation level of spending per pupil, t is conceived as a tax rate required of local districts, and P_i is the property valuation per pupil at the local level. The foundation plan is interesting not only because it remains the dominant form of state aid but also because it contains an explicit measure of the funding level that would be necessary for an adequate minimum level of education.

Strayer and Haig themselves; their most important follower, Paul Mort; and countless other workers in the vineyards of school finance have elaborated foundation plans over the years, trying to make the formula conform to variations in educational need. Cost differentials, sparsity factors to compensate for the different needs of different groups of pupils, and special provisions for transportation costs in rural schools have been among the elaborations proposed and adopted. However, on the central question of what the foundation level of spending should be in the absence of any complicating factors, advice on how to establish an adequate level has been rare, and politics has inevitably taken over. Like the Cubberley plan, then, the Strayer-Haig approach has been inadequate to providing an acceptable minimum level, because the foundation level has frequently been set too low, because the foundation level is diminished by a "required" contribution from local districts, and because the possibility of substitution—especially for poor districts—undermines the intent of the foundation aid plan to increase school spending (Grubb and Osman, 1977).

The first and most obvious point to be made about these debates is that a concern for inequalities in school spending—a concern which has logically led to the conclusion that such inequalities ought to be eliminated (or at least ought to be made random with respect to local wealth)—has usually been turned into pressure to establish a minimum level of spending instead. The logic behind this position has been that by increasing the spending of the low-spending districts, inequalities in expenditures would be reduced by concentrating precisely on those districts where the expenditure problem was most acute. In contrast, those concerned about inequality have usually been quick to claim that high-spending districts—"lighthouse districts"—ought to be left to raise as much as they can from their own tax base, a principle justified by Paul Mort as the "efficiency principle." In practice, although concern over spending inequalities has generated ever more complex formulas to distribute state aid to enhance equalization, states have also included various kinds of floors and ceilings in formulas to assure that wealthy districts receive some state aid. And although a great deal of academic and political energy has been expended in the search for formulas of greater sophistication, the search for ways to establish minimum levels of spending and to make sure that all districts can in fact attain these levels has never generated the same energy.

A second point about the history of school financing efforts is that the issue of inadequate financing has always been tied to a debate over the inadequacy of funding at a lower level of government—either the inadequacy of local government, in the case of state aid, or the inadequacy of state revenues, in the case of federal aid—and the use of intergovernmental grants as a way to compensate for these inadequacies. In fact, much of the impetus behind intergovernmental grants, at both the state and federal levels, has come from the field of education. At the federal level, the land grants for education of 1862 are conventionally cited as the first example of intergovernmental grants, followed by the Smith-Hughes Act of 1917 providing federal funding for vocational education and the many federal programs of the Great Society beginning in 1965. At the state level, systems of state aid to local districts have grown increasingly large and complex during the twentieth century. However, what factors are behind the alleged inadequacy of local or state funding has never been clear. Evidently, one factor has been inequality—inadequate funding because of income and wealth differences in some (but not all) districts or states. Decisions to provide fewer funds than are commonly accepted as necessary (e.g., in compensatory education or vocational education) account for other kinds of inadequacy.

Other possible factors are visible only with hindsight, since they have been less explicit in political debates. For example, local taxes are less efficient, less equitable, and more costly to administer than are state taxes, as are state taxes relative to the federal tax system. State governments have an advantage in raising revenues over local governments, as does the federal government over the states. Also, a variety of economic theories suggest that sub-federal governments will underprovide various public goods—because of "spill-overs" or externalities—when non-residents benefit from a public good but do not pay for it, or because of the fear of out-migration of both residents and businesses. These fears should presumably be more powerful at the local level than at the state level, and they should be more powerful for public goods (like vocational education or compensatory education) that redistribute from the rich to the poor, because such goods are especially likely to cause the right to leave a political jurisdiction. In confirmation of these presumptions, debates over the inadequate funding of sub-federal governments have been most persistent at the local rather than the state level, and about redistribution programs in general. Thus while the debates over inadequate funding for education have had a particular urgency because of the special place of education in our society, they have been part of much wider discussions about the problems of inequality and underfunding inherent in any federal system.

Discussions about the inadequacy of educational funding have had a special urgency because of the particular role of the schools in preparing children for adult life; thus inadequate funding implies inadequate preparation for adulthood. However, what the schools actually do in preparing children for adult life has never been entirely clear. If schools rank students, and have little other effect on students, then inequalities in funding are of the greatest concern since low-spending schools will turn out students who rank lower and therefore will have lower chances for adult success. If, on the other hand, schools do pass on to students valuable skills (such as literacy), attitudes that are socially necessary (such as moral character or respect for the law), or personal traits that are functional to capitalist employment (such as punctuality), then inadequate funding and inadequate education imply a deficiency in some of these characteristics, and a concern with a minimum level of funding and education—rather than simply with inequalities—is appropriate. Debates over greater equality versus establishing minimum levels of funding and education have often been based on different conceptions of what education does and why it is valuable, and a concern for establishing a level of adequacy—a minimum level—has been connected to the idea that the schools do something besides simply rank students.

However, this particular division suggests a dilemma in the concept of an adequate education. Since schools both rank pupils and pass on some valued traits and skills (even if their skill content is somewhat less than we would like), then the conception of adequacy shifts back and forth between an absolute notion requiring a minimum to the relative notion and concern with inequalities. For example, as long as some inequalities in funding and preparation remain, then some low-spending schools are inadequate relative to others. This builds the pressure to eliminate inequalities. But eliminating inequalities is very difficult politically as wealthy districts seek to hold their preeminence. Moving to an absolute notion of adequacy linked to a minimum level of funding becomes legitimate and may be effective in reducing inequalities, but it may also be inappropriate, since it draws attention away from the persistence of inequalities. The entire history of state financing plans has followed precisely this course: concern over funding inequalities (and the inequalities of opportunity they imply) being replaced with state aid plans that are intended to establish a minimum level. This also suggests one reason why the debates over adequacy in education have been so persistent: Since equality in funding is never achieved, some schools are always by definition inadequate, setting the state for another round of incomplete reforms.

Finally, we should note that the efforts to address the adequacy of funding have always shied away from the central problem of specifying what an adequate level of funding should be. The efforts to develop foundation programs, for example, have almost always relied on political judgments about how much a state is willing to spend on school aid, and calculated the foundation amount accordingly. Alternatively, efforts to specify minimum spending levels have sometimes relied on the actual spending levels of specific schools—especially exemplary schools—a practice which again returns us to the relative conception of adequate funding. Thus the historical record suggests that the concept of adequate funding is not a technical concept but is instead both inescapably political and unavoidably relative.

II. The Adequacy of Educational Resources: Teachers and Teaching

For much of the nineteenth century, the notion of an adequate teacher could be summarized in a few words: a teacher should be moral, inexpensive, and able to control students. Knowledge of subject matter was the least important characteristic. Because schooling was essentially an education for moral character, an adequate teacher had to conform to a community's moral expectations. A religious test might be given, but the best way of assuring morality was to choose one of the community's sons or daughter to teach; not surprisingly, most teachers were from local or neighboring communities. Daughters of course were best, provided they learned how to control their students, since the ideology of womanhood gave them a special place in the inculcation of moral virtues. Teaching, especially of young children, was an extension of the home, and women teachers the extension of motherhood into the public realm. Although the close examination of moral behavior was made difficult in cities, and while the trend over time was toward professional autonomy, the expectation that teachers would serve as moral models remained.

Women possessed another virtue: They would work for very little money. The strains of providing educational facilities for a growing population, the increased commitment to common schooling, and longer school terms made the promise of cost savings important. Teachers were always in short supply, in part because the entrepreneurial opportunities of mid-nineteenth century America offered men chances far beyond those available in classrooms. Women, in contrast, had few opportunities, even as they received more education. Women were not hired as teachers simply because they were inexpensive; the beliefs that women were more suited to teaching moral behavior and were more appropriate companions to the young were not simply a rationalization of meaner concerns. Nonetheless, women were available for one-half to two-thirds the cost of men, and they quickly became America's teaching force.

Before they did, however, women had to overcome one more barrier; they had to show that they could control their students. The issue of discipline was central to nineteenth century educational concerns. Edward Eggleston's Hoosier schoolmaster had to physically overcome mischievous youth. In Massachusetts, Horace Mann reported in 1843 that more than 300 schools had been "broken-up" by boys in the five previous years. At first, it was assumed women could do little with older boys, and they tended to teach the summer session when most older youths worked. But as pressures to hire women increased, so too did evidence that they could control their classrooms, especially as schools themselves became graded by age so that older youths were segregated from the younger ones, as the process of proceeding year by year through the curriculum socialized youth to the classroom regimen, and as the curriculum itself became standardized through the use of formal instructional guides (Fitts, 1979).

Finally, there was some expectation that an adequate teacher needed knowledge of subject matter; at minimum, they should be able to read, write, spell, and cipher at levels beyond those of their students. During the course of the nineteenth century, efforts were made to assure this, usually by standardizing hiring criteria and establishing normal schools and state certification. Indiana provides an excellent example. Beginning in the 1870s, county superintendents of schools held examinations for prospective teachers drawn from questions issued by the state superintendent. On the basis of performance, the county superintendent would then issue a license making the candidate eligible to teach in that county's schools for a variable period of up to three years. The scores might also be used to determine salaries. At the end of the century, applicants could qualify for statewide teaching licenses by having their examinations graded by the state department of public instruction. At the same time, the state's normal school, opening in 1870, offered courses to "confer that knowledge which constitutes the science of education, and to train students in the art of instruction and school management" (Boone, 1892). Upon completion of the normal school course, students were granted certificates of proficiency making them eligible to teach anywhere in the state, and after two years of teaching could be given a permanent license to teach.

Developments in Indiana reflected a nationwide trend, still very much incomplete in the nineteenth century, toward defining teacher adequacy by a system of course credits. The process accelerated after 1900, as normal schools and colleges of education proliferated both as independent institutions and within major universities. The movement to professionalize teachers drew on the previously articulated rationales of increased competence and status, but, in parallel with the broader movement to limit access to the professions by requiring lengthened and specific educational programs, it greatly expanded claims of benevolence and of expertise based on science. Drawing especially upon the new fascination with psychology and child development, upon the increasing status of specialized academic subjects like economics and sociology, and upon the increased stress on organizational and administrative rationality, the training and certifying of teachers through course credits in education quickly became the accepted basis for determining teacher adequacy.

Yet the status of teachers remained low. Hiring was done at the local level, subject to continuing whims of superintendents, principals, and school boards. If the worst features of patronage and annual appointments were eliminated, tenure was tenuous, teacher turnover high, and teachers frequently subjected to criticism. During the rest of the twentieth century these conditions led in three conflicting directions. The first was a continuation of earlier trends: successful efforts to improve the status of teachers by lengthening teacher education programs and by eliminating access to teaching for those who did not complete the programs. The second trend was toward unionization, accompanied by efforts to increase wages, gain greater control over the conditions of work, and establish greater authority over hiring and firing.

Professionalization and unionization represented somewhat different approaches by teachers to establish their own definitions of adequacy. A third development, however, implied that teachers, on their own, could never be adequate. Efforts to create teacher-proof curricula had always existed, in their earliest form through the creation of highly specific courses of studies, such as the one prepared by Chicago's superintendent of schools in 1862 entitled, "A Graded Course of Instruction with Instructions to Teachers." The development of educational hierarchies with primarily male administrators overseeing primarily female teachers similarly represented doubts that those who taught really could teach. In the 1950s, teacher-proof curricula again came to the fore in attempts to improve the academic content of schooling; elaborate course guides, programmed instruction, and language labs entered school systems, at the same time that standardized testing established state and national norms for what should be learned.

The three different developments in the search for definitions of teacher adequacy came into open conflict in the 1960s and 1970s. Professionalization through course credits conflicted with doubts about the adequacy of schools of education, about whether there was a "science" of pedagogy, and about the costs of extended schooling. Teachers proclaimed their rights to autonomy--from parents as well as school boards--in order to do their jobs, but came into conflict with minority groups, with the belief that teachers wanted self-aggrandizement, and with the high economic and political costs of union victories. Teacher-proofing proved elusive; many teachers either found themselves terribly confused about the new materials or simply repeated traditional techniques. Others sought to construct their own courses and teaching material, often in response to student demands, rejecting the pressures for standardization. By the end of the Seventies, the definition of an adequate teacher was inconclusive, amid new hopes that a definition of adequacy could be agreed upon.

III. The Adequacy of Educational Resources: Schoolhouses and Classrooms

For most of its history, the ideal of American education that every child between certain ages should be in school has assumed both a place for every child and an appropriate environment for learning. Both these assumptions have been essential to the justifications for capital expenditures for buildings and classrooms.

During the nineteenth century the voluntary nature of schooling, limited surplus income, and low expenditures on public facilities combined with periods of rapidly growing school attendance to keep schools overcrowded and poorly built. At the same time, efforts to improve the condition of school buildings occurred, in part because the schoolhouse was often the most important public building in a community. The small white building, a resident of Prairie View, Kansas, wrote, "was not only the schoolhouse, but the center--educational, social, dramatic, political, and religious--of a pioneer community of the praire region of the West" (Tyack, 1974).

The condition of school buildings was a concern for another reason: The physical environment was considered important for learning. Educational reformers like Horace Mann and Henry Barnard campaigned tirelessly for buildings that were well-ventilated and heated, for school furniture appropriate to developing bodies, and for sufficient space for play and efficient movement. For Barnard the appeal often went beyond rhetoric; in the 1840s and 1850s his widely read School Architecture, Or Contributions to the Improvement of School-Houses in the U.S. included model building plans (McClintock, 1970). The assumption, persistent from the mid-1840s through to the 1960s, was that the physical nature of the building attested to the value placed on the education occurring within and would actually enhance learning. An orderly building would cultivate habits of order and neatness; an attractive school made learning more attractive. In the words of Philadelphia's school board president in 1879, "in its substantial construction" the schoolhouse "should be a lesson to the pupils of stability and honest worth" (Cutler, 1974).

At the turn of the century these same assumptions were reinforced. The passage and enforcement of compulsory attendance legislation required sufficient classroom space. The development of a "science" of pedagogy and educational and development psychology suggested that appropriate play and classroom resources were necessary and that pupil/teacher ratios should be lowered. In urban areas educators claimed that attractive, well-heated, and orderly schools provided an alternative to the disorder of city streets and immigrant families. Large schools were built with specialized areas--gymnasiums, industrial shops, home economics rooms, auditoriums, and playgrounds--designed to fulfill the multifacted expectations of twentieth century schooling. Schools were built at accelerating rates and costs. Expenditures on city schools tripled between 1890 and 1910; for almost thirty years, between 1890 and 1918, new high schools were built on the average of one per day. Even then, many school districts could barely accommodate the number of pupils seeking spaces or provide what educators considered adequate classrooms. Even after modernization of physical plant was a top priority for more than a decade, a 1920 survey by Pennsylvania's Department of Public Instruction concluded "that the general condition of Philadelphia's school plant is deplorable." Dirt was everywhere, lighting was insufficient, desks could not be adjusted to the size of occupants, play space was almost totally absent in a number of schools. Much the same could be said about other city school systems (Cutler, 1974).

Still, many Americans in the twentieth century could look with pride on their educational facilities. In Muncie, Indiana, citizens spoke proudly of their new vocational education areas and of the gymnasium where one of the town's proudest possessions, the high school basketball team, displayed its wares (Lynd, 1929). A growing and geographically mobile population demanded, and often got, new school buildings with the specialized areas they had come to feel necessary to an adequate education.

Nowhere was this more apparent than in the flush of building that followed World War II suburban America. As middle-class Americans fled the cities, they often justified their move as a means of procuring a better education for their children. Suburban school districts mushroomed; buildings could barely keep pace. Although there were often bitter debates over school budgets, the remarkable fact is how many buildings were built and how often they conformed to the expectation that an adequate building required all the paraphenalia: Science laboratories, driver education classrooms, guidance facilities, and music rooms were added to the already familiar list. Air conditioning, extensive use of natural light, parking spaces (at the high school, often more for students than for faculty) all became prerequisites of an adequate building. As before, the elaborate attention to physical space was justified as essential to learning, but as before, it was also a statement of pride in what was often the community's largest and most important public building. Whatever effect the new school buildings had on learning, they were statements of community aspirations.

The 1970s witnessed a change in what had been the historic conditions and assumptions of adequacy. As the baby boom generation gave way to declining birth rates, many school districts found themselves in a condition only few had faced in the past: more classrooms than they needed. The issue was clouded, to be sure, since many inner-city schools remained overcrowded and in wretched condition, and some fast-growing areas were barely meeting demands for space. Nonetheless, it appeared to many Americans that the goal of sufficient resources to provide a space for every child had been reached—and exceeded.

At the same time, an even more dramatic alteration in the assumption of adequacy occurred. Educational reformers and professionals had always assumed that the physical condition of buildings and classrooms was a prime determiner of learning levels. As we have seen, that assumption pervaded the common school crusade of the mid-nineteenth century, and it remained powerful thereafter. In the late 1960s, however, beginning with the first Coleman Report (Coleman, 1966) a number of research studies began to cast doubt on whether building and classroom resources made much difference to learning. The issue remained contested, for education professionals continued to argue that physical environment made a difference in their capacity to teach effectively. But while the debate was muted by the withdrawal of funds in general from the educational system and by the decline in the number of buildings necessary to accommodate the student population, the notion that extensive physical resources were essential to learning had been challenged. It served as a weapon in the drive to cut public funds from the educational system.

IV. The Adequacy of Educational Resources: Curriculum

In the eighteenth and for much of the nineteenth century, debate about what constituted an adequate curriculum was limited. Children supplied their own books, and pedagogy amounted to hearing the students recite lessons. Provided the material was morally acceptable, there was little to be concerned about. Increasingly, however, efforts were made to consolidate the curriculum through the use of standardized courses and through the provision of free textbooks to all pupils, decisions that involved more extensive discussion of what constituted adequacy. At the high school level, courses were added to meet the varied ends of secondary education, but the power of the traditional curriculum remained strong. With high school attendance still limited to the few, Latin remained the most important course in the high school curriculum into the 1890s.

At the turn of the century debate about an adequate curriculum heated up, especially at the high school level, largely over what courses of study youth should follow and how rigorously academic ends should be pursued. In 1893 the National Education Association's Committee of Ten complained that too many subjects were being taught inadequately and proposed that students choose from one of four course programs. But the committee also declared that every course aim at the same ends: "training the powers of observation, memory, expression, and reasoning" (Krug, 1969).

Twenty-five years later, with the high school well on its way to becoming a mass institution, the NEA's Commission on the Reorganization of Secondary Education (1918) pushed the assumption of a variegated curriculum and student choice considerably beyond the Committee of Ten's recommendations. "Secondary education," the new commission wrote, "should be determined by the needs of the society to be served, the character of the individuals to be educated, and the knowledge of educational theory and practice available. These factors are by no means static." The commission urged a curriculum that reflected all aspects of social life, all the variations of the students, and that courses not be thought of as teaching "general discipline" but as training for specific relevance and practical outcomes. The inclusiveness of the curriculum was revealed in the proposed social studies offering:

> ...[which] shall include such topics as the following: community health, housing and homes, public recreation, good roads, community education, poverty and the care of the poor, crime and reform, family income saving bonds and life insurance, human rights versus property rights, impulsive action of mobs, the selfish conservatism of tradition, and public utilities. Long as the foregoing list is, it is quite apparent that many more vital topics could be added. (Calhoun, 1969, pp. 485-505)

The positions articulated by the 1918 commission soon became the common wisdom of American education. The adequate curriculum had a large number of subjects and courses of study directed toward adult destinies. Sociologists Helen and Robert Lynd recorded what that looked like in Muncie, Indiana, during the mid-1920s:

> The freshman entering high school may plan to spend his four years following any one of twelve different "courses of study"; he may choose the sixteen different yearly courses which will make up his four years of training from a total of 102. All this is something new, for the 170 students who were going to high school in the "bursting days of boom" of 1889-90 had to choose, as Middletown high school students had done for thirty years, between two four-year courses, the Latin and the English courses, the sole difference between them being whether one did or did not take "the language." The number of separate courses open to them totaled but twenty. (Lynd, 1929)

By the post-World War II period, it was assumed that an adequate secondary curriculum required an extensive number of courses: summarizing one of his major recommendations, James B. Conant in 1959 called for the consolidation of high schools with "a limited degree of comprehensiveness."

> The enrollment of many American public high schools is too small to allow a diversified curriculum except at exorbitant expense. The prevalence of such high schools--those with graduating classes of less than one hundred students—constitutes one of the serious obstacles to good secondary education throughout most of the United States. (Conant, 1959)

The issue of adequacy was not simply comprehensiveness. Like the earlier Committee of Ten, critics of the curriculum were concerned about academic rigor in the 1950s. The concerns of the Cold War and the widespread talk of a "knowledge explosion" led to a host of curriculum innovations to upgrade standards; the new physics and new mathematics of the late 1950s were soon followed by major reform efforts in the other sciences, social studies, languages, and English. The dilemma of the adequate curriculum soon came to be how to have choices—accelerated by the demands for "relevant" courses in the 1960s and 1970s--and rigorous training simultaneously. In practice, rigor often gave way. The excellent high school of the 1970s was a school in which a smorgasbord of courses was available.

Although some observers phrased the issue of an adequate curriculum as one between choices and equality on the one hand and excellence on the other, that phrasing was misleading. There was nothing inherent in the concept of choice that made the provision of what was offered mediocre. Nor was there anything in the drive for equality that required a denigration of the desire and the capacity to learn. The problem was more one of structure: As schooling became important to occupational certification, and as each level of schooling was largely seen as a steppingstone to the next level (and thus to higher occupational status), the essential decision a student had to make was what track to enter. Once that decision was made, it made little difference which one of the courses was chosen within the track, nor how much one learned in the course. To the university-bound youth, it thus made little difference whether they studied English poetry, black literature, or newspaper language in their English classes. Youth in terminal courses not intending to go beyond high school found the issue of how much was learned similarly irrelevant. All that really mattered was the effect taking the subject had on the next level up the educational/occupational ladder. The calls for a common curriculum and rigor thus made little more sense than prior claims for choice and letting students do their own thing.

V. Educational Adequacy: The Outcomes of Schooling

The public schools, so the journalist Richard Grant White wrote in 1880, were a failure, "unworthy of either confidence or pride." In return for the millions of dollars expended, the results were a travesty.

> According to independent and competent evidence from all quarters, the mass of the pupils of these

> public schools are unable to read intelligently, to spell correctly, to write legibly, to describe understandingly the geography of their own country, to to do anything that reasonably well-educated children should do with ease. They can not write a simple letter; they can not do readily and with quick comprehension a simple "sum" in practical arithmetic; they can not tell the meaning of any but the commonest of the words that they read and spell so ill....The testimony to this amazing and deplorable condition of the mass of the pupils of our public schools is so varied, so independent, and comes from so many quarters that it must be true; it can not be disregarded. (Calhoun, 1969, pp. 304-310)

White was engaging in what was quickly becoming a perennial feature of American education: fervently held, rhetorically powerful, and widely publicized attacks on the outcomes of schooling. By the early twentieth century, a host of commentators were finding the schools inadequate. Leonard Ayres argued in 1909 that the schools were filled with "laggards," individuals doing so poorly that they had fallen considerably below their grade level (Ayres, 1909). Other surveys found the same thing: young people drifting through school, barely learning, putting in time until they slid off into the labor force. In the 1950s another wave of criticism appeared, as Albert Lynd, Arthur Bestor, and Hyman Rickover chastized the public schools for failing to provide both basic minimum levels of competency and advanced academic training. In the 1970s and 1980s the complaints have once again become strident; the schools, in Paul Copperman's terms, have engaged in a "literacy hoax," claiming to teach while abdicting any responsibility for actually doing so (Copperman, 1978).

The complaints about the inadequacy of education should not be surprising. No public institution has received more attention, nor has any been charged with so much responsibility as the public schools. They have embodied some of America's highest aspirations and have been the scene of some of its most bitter strife. Educational institutions have been supported in order to bring national unity, to enhance the community and national economies, to curb potential social unrest, to teach citizenship, to smooth the transition of productive workers into the economy, to solidfy group values, and to enhance individual opportunity. The expectations have been enormous; they have also often been contradictory.

But the complaints about the outcomes of schooling have not simply been a product of asking too much of the schools. Nor have the expectations about the purposes of schooling always been the same or the contradictions resolved in the same way. Rather, the emphases on what the outcomes should be have changed, and with the shifts have come new expectations about what constitutes educational adequacy.

In colonial America the issues were simpler: Children were educated in the interests of religious orthodoxy. Becoming literate was important because it meant access to the Bible. The young learned to achieve salvation in the next world while learning to act morally in the present. No document more precisely reveals this than the New England Primer, which, aside from the Bible itself, was probably the most widely used text of the colonial area:

> In Adam's fall, We sinned all.
> Heaven to find, the Bible mind.
> Christ crucify'd for sinners dy'd.
> The Deluge drown'd, the earth around. (Kaestle, 1981)

The common school movement of the early and mid-nineteenth century did not eliminate the assumed connection between religion, morality, and education. But it did alter the view that by religion was meant particular denominational doctrines, substituting a broader pan-Protestantism as the basis of moral behavior. Sectarian education, every major common school crusader argued, was potentially destructive of public schooling, for it threatened to divide youth into denominations, withdrawing the young into separate educational systems. The goal of public school crusaders was the creation of common Christians through common schooling.

The emergence of the new republic added a second expected outcome to education. The Revolution, the Declaration of Independence, and the forging of state and national constitutions made clear that large numbers of Americans would have a say in governing their country. Right from the beginning, the schools were seen as necessary to prepare the next generation for the responsibilities of citizenship. All who were expected to participate in their own governance needed at least enough learning to make decisions. Echoing widespread views, Thomas Jefferson wrote that it was necessary "to diffuse knowledge more generally through the mass of people" if the republic was to survive. It was a theme, as Lawrence Cremin has noted, that was "universally articulated during the early decades of the Republic...the need of self-governing people for universal education" (Cremin, 1980).

To the creation of Christian citizens was added a third expected outcome: the preparation of economically productive individuals. Increasingly over the nineteenth century, economic growth replaced the Declaration and the Constitution as America's principle contribution to the outside world. The school's task in reaching this goal was varied and at times contradictory, but its essential thrust was to inculcate those attitudes necessary to enhance the nation's economic expansion. To those whose backgrounds were pre-capitalist or pre-industrial, like the children of Irish peasants or of the newly-emancipated Black slaves, schooling would teach basic work values: punctuality, thrift, acceptance of one's place in the economic hierarchy. But economic growth required more than allegiance to prescribed rules, to grab the main chance. The American economy depended upon those who aspired to economic success; for some, that meant docility and obedience to the demands of the workplace, for others, the initiative of the rising capitalist entrepreneur (Kaestle, forthcoming).

Crucial to the trimvirate of expected educational outcomes—the molding of Christians, good citizens, productive workers—was the assumption that the benefits were communal and public more than individual and private, that they would infuse Americans with what deTocqueville called "self-interest rightly understood." Americans would recognize, and the schools would so teach, that individual aims were best achieved when they were subsumed within the larger aims of the community. This would not be easy, and as deTocqueville recognized, there would be a persistent tension between the goals of community responsibility--i.e., the public good--and individual gain. Nonetheless, the higher aim was clear: One's private ends had to be made compatible and had to evolve within the context of the public goals of religiously based morality, the political participation of citizens, and national productivity.

The mechanism for determining whether these ends were achieved was never entirely clear. Evaluating the outcomes of schooling could occur only in the future. The structure of schooling itself heightened the ambiguity of discovering whether the education was adequate. Beyond the rudiments of reading, writing, and counting, witnessed through classroom recitations, schooling demanded very little of most youth. As late as 1898, U.S.Commissioner of Education William Torrey Harris could take pleasure in noting that most children were now attending elementary school for four to five years. For most of the century even that attendance was erratic, the school terms were short, and youth of varying ages mixed together in classrooms using a wide variety of books. All of this complicated the problem of determining just what children knew and what they could be expected to learn. If the outcomes of schooling were grandiose in social terms, the expectations for what each child actually learned were not very great at all. As long as schools were primarily seen as places for rudimentary cognitive learning and the important outcomes were social--moral behavior, the obligations of citizenship, and economic productivity--there seemed little real need for much else.

At the turn of the century the mix of expected outcomes changed, and with the change came concern for measuring outcomes and their adequacy. In the simplest terms, the outcomes of schooling came more and more to be shaped by vocational goals, while learning itself came to be treated in bureaucratic and quantitative terms. The shift was not entirely novel, since vocational goals had never been excluded from American education. Horace Mann in the 1840s had justified public education in terms of its economic importance: As educated individuals became more productive, their economic worth would increase. Throughout the century, high schools had been justified at least in part because they would enhance occupational opportunities of those who attended them. Some occupations were available only to those with some schooling. The novels of Horatio Alger show how education could help one get ahead. Concerned about his status in life, Ragged Dick makes a deal with Fosdick, a more educated but more abused friend:

> I'll make a bargain with you. I can't read much more'n a pig; and my writin' looks like hen's tracks. I don't want to grow up knowin' no more'n a four-year-old boy. If you'll teach me readin' and writin' evenin's, you shall sleep in my room every night.

Not long afterward, Fosdick gets a job and expresses disappointment that Dick does not yet have one. Dick's response affirms his belief in education as an avenue of success: "I don't know enough yet. Wait till I've gradooated" (Alger, 1962).

The expectation of individual vocational ends was a minor theme of nineteenth century schooling, however. Economic mobility occurred through perseverence and the manifestation of moral behavior that could be learned in school, but moral behavior came from other sources as well. Even the Alger heroes depended more on an inbred moral sense and luck to get ahead than on readin' and writin'. For most of the nineteenth century, the relationship between school attendance and income was limited; the labor market itself rarely required extended literacy, and there was even an ethic of achievement that considered too much schooling detrimental to an individual's economic success (Kaestle and Vinovskis, 1980).

In the first decades of the twentieth century the limited vocational emphasis of the earlier period was transformed, as schooling came more and more to be valued for its economic returns to the individual. To be sure, the old triumvirate of expected outcomes remained, though somewhat refashioned. The association of education and Protestantism was revised into an amorphous Christianity, amidst the compromises of religiously polyglot America and the apparent trend toward secularization. The expectation that schools had to produce citizens remained, modified by the rampant fears of foreigners and doubts that democracy functioned best when participation in governance was widespread. Citizenship education became Americanization, and education for democratic participation came to be shaped by a new emphasis on the role of expertise and professionals in decision-making. Education's importance to economic growth remained, but now the assumption that there were different kinds of youth, those who had to follow the rules and those who shaped them, became hardened with the acceptance of more sharply defined class divisions and with an emphasis on the new corporate man rather than the individualistic entrepreneur.

The orientation toward vocational goals shifted the emphasis in schooling toward explicitly monetary ends, away from social goals toward individual returns. Examples abounded; a U.S.Bureau of Education pamphlet published in 1917 attempted to measure "The Money Value of Education" by assessing what each year of schooling contributed to income from various occupations. Educators and lay reformers alike proclaimed the economic returns to schooling, exhorting youth to stay in school to increase their earnings, "to learn to earn." The transformation in the mix of what the outcomes of schooling ought to be was succinctly summarized by the president of the Muncie, Indiana, school board in the 1920s: "For a long time all boys were trained to be President. Then for a while we trained them all to be professional men. Now we are training boys to get jobs." The schools of Muncie took the task seriously; vocational education courses were a highly prominent feature of the high school, and the parents of youth agreed that the primary reason for their children to attend school was to get ahead (Lynd, 1929).

The reasons for the shift toward individual vocational ends as the primary outcome of schooling are not entirely clear. But the consequences have been dramatic: The educational system came more and more to promise individuals access to the labor market. As it did so, staying in school became an individually rational decision. The process was undoubtedly dialectical: As youth stayed in school longer, access to better jobs improved, thereby strengthening the reason for staying in school. The rationale, however, distorted what had been the central motif of nineteenth-century American education--deTocqueville's "self-interest rightly understood"--and replaced it with an Adam Smith-like notion of the common good as derived from essentially self-interested individuals acting in their own self-interest. Schools were valuable for the individual ends they served, and increasingly those ends were measured by economic returns.

The shift toward economic returns as the basic measure of educational adequacy was paralled by a second shift toward measuring what children learned and what they were competent to learn. Growing school enrollments, the economic costs of mass education, and the heterogeneity of the urban school populations at the turn of the century led to a reshaping of the educational system's organizational structure. Age-graded classrooms established a definite time and place for each child; standardized curricula articulated with grade level established what each child should know at any given age. The emergence of IQ tests and other standardized tests established the mechanism for ascertaining what each child knew or was likely to be able to learn.

These changes furthered the trend toward defining educational adequacy in individual terms, most powerfully through the measurement of an individual's cognitive capacities. There was little room in this view for social and communal concerns. Moral behavior, participation in the political process, expressing public concern, subordinating individual interest to social ends—these became irrelevant as measures of whether the education system was functioning adequately. Instead, the measure of success was the test score.

The new dominance of cognitive measurement was closely related to vocationalization, for it fed the pattern of differentiated learning associated with vocational trends. In a class society, vocational preparation meant preparing youth for a differentiated labor market. In schools, that meant differentiated treatment for youth differentiated by learning capacities. A self-fulfilling process was quickly established. Youth who could not learn—"the manually-motivated," the genetically inferior, the culturally deprived— were found by measuring intelligence or assessing other standardized test scores; they were then to be educated for intellectually less demanding forms of work, those occupations with lower status and lower income. The circle was neat. The educational system could in the most immediate sense establish adequacy by measuring capacity and fitting youth and the curriculum to that measure, and in the long-term sense, it could assume that education was simultaneously effecting the most appropriate vocational fit for its students.

That the educational system has never worked so neatly is a measure of both the complexity of social institutions and the ability of individuals and groups to modify social programs. But it is also a measure of how deeply contradictory have been the assumptions about the outcomes of American education in the twentieth century. The individual and vocational aims that have dominated expectations have pitted Americans against one another. The schools are supposed to fulfill the individual aspirations of "my" child, even if that must come at the expense of other people's children, especially other people's children who are of a different race, social class, or gender. Americans may still insist on the public goals of education, claiming that schools must inculcate moral behavior, public responsibility, and economic productivity; but their strongest feelings are directed at whether the educational system is enhancing "mine" over "yours." The measure of adequate outcomes, like the aim of schooling itself, has become private and individualistic.

This brief history of the goals of schooling implies that what constitutes an adequate education has been a moving target. As the purposes of schooling changed from religious to moral to vocational, so too has the concept of what constitutes an adequate education. Currently, with vocational goals dominant, public education has above all been attacked for its vocational inadequacy. Many students leave high school and college unprepared for employment, and the schools have never fulfilled the promise of fitting every child for employment. These notions of inadequacy ignore high unemployment rates; racial, sexual, and class discrimination; and discrimination against youth. Residues of earlier goals of schooling remain, and so the inadequacy of education also encompasses the goal of literacy and the fear that many high school graduates are illiterate. So too do concerns about moral development remain, and with it the idea that schools have failed to prevent juvenile delinquency, teenage pregnancy, unstable employment, and the alleged decline in the work ethic among young people. Given the varied and shifting purposes of public education, the concept of adequacy has thus itself been shifting and increasingly complex.

When we examine more carefully the vocational purposes of schooling, then we can see that the concept of adequacy is shifting and uncertain in another way. Since there exists a continuum of employment--jobs with varying earnings, varying stability of employment, varying career opportunities, varying degrees of challenge and control, varying levels of status and power--preparation for employment is an incomplete goal until one specifies what kind of employment is being prepared for. If the schools are judged inadequate when they fail to prepare youth for employment, the question remains what kind of employment is at issue. In terms of preparing students to be doctors, for example, the schools are clearly inadequate for almost everyone; in terms of preparation for unskilled labor, the schools are more than adequate (though labor markets may provide inadequate numbers of unskilled jobs). Thus adequacy in the sense of vocational preparation has no intrinsic meaning, but is relative to what kinds of employment are specified.

However, this does suggest one conception of educational adequacy. The schools are adequate in their vocational purposes when all existing jobs are filled, or when there is a match between schooling and jobs. The schools have frequently been criticized according to this conception, because the "mis-match" between students and jobs suggests educational inadequacy. Quite apart from the fact that this conception of adequacy is --once again--a relative one that changes as the job structure changes, it still does not specify what adequacy would mean in an economy with chronically high levels of unemployment, with higher levels of unemployment for some groups (minorities and youth) than for others, and with substantial regional differentials in unemployment between the industrial Northeast and the growing sunbelt. Nor does it deal with the need for some frictional unemployment. An educational system that prepares precisely the number of workers demanded in one year will still be inadequate, because imperfect labor market information implies that some of the trained workers will not know about job vacancies; unfilled vacancies and trained but unemployed workers will still coexist. Although it might be possible to make this conception of educational adequacy more precise (such a conception constantly changing with the state of the labor market), it will inevitably be political, because of the need to specify what acceptable unemployment levels are and what acceptable employment is, and because it depends heavily on labor markets external to the schools themselves.

There is yet another way in which the concept of educational adequacy has varied historically. Rather than a unitary conception, what is considered adequate education has always varied by groups of students. Sometimes the variations have been legitimate or at least inescapable. The education that is adequate for a trainable mentally retarded child is different from that adequate (or appropriate) for a normal child or a gifted child. But more often the variations in conceptions of adequacy have embodied the class, racial, and sexual biases of the schools. What is adequate for working-class students—particularly a vocationally oriented curriculum—is inadequate for middle-class children bound for college and middle-class jobs; for a long time the level of education considered adequate for girls was less than that considered adequate for boys. As a result, complaints about educational adequacy have varied by class. Middle-class parents have complained about the inability of the schools to guarantee their children middle-class status, while working-class and minority parents have complained that the schools fail to guarantee their children stable employment or even any employment at all. Of course, variation in conceptions of adequacy with the mental capacities of students and variation with their class and racial backgrounds have historically been linked. Early IQ tests were designed to identify the subnormal and the gifted; they assumed class and racial determinants. IQ tests and placement in special education remain seriously biased by race. Thus it is difficult, except in the extreme cases of physical or mental handicap, to escape the biases of the public schools in defining levels of adequacy.

The variations of educational adequacy by class and race have been part of another historic discussion: whether inadequate educational outcomes—unemployed and unsocialized workers or illiterate citizen—are due to inadequate schools or to inadequate children (and their parents). A long history of labeling some students in terms suggesting their personal incapacities—the "manually minded" of the 1880s and 1890s, the "children of the masses" who flooded into the high schools after 1890, immigrant children, non-English-speaking children, the "educationally disadvantaged" children rediscovered in the 1960s—has suggested that the schools might be less the cause than parents and children themselves.

But with the schools given the social responsibility to prepare a new generation of workers and citizens, the existence of "inadequate students" has historically led to a somewhat different view of inadequate education. If students unfit for public education turned up in large numbers, then the schools were remiss in failing to adjust the curriculum to the individual capacities of each student—with vocational education for the manually minded, compensatory education for the educationally disadvantaged, bilingual education for the child of limited-English-speaking ability, and special education for the slow learner. Thus an adequate schooling system became one which adjusted its curriculum and expectations to the abilities—or the inadequacies—of each student. This pattern—individualized instruction in all its many guises—has been reinforced by IQ and achievement testing, intending to measure in supposedly more accurate ways the relative abilities of students and to identify those students with specific inadequacies and regulate them to specific tracks and curricula. In the process, the view that some children are inadequate has been used to distort the content of the schools, in ways which have often been biased by the class, race, and sex of students. Thus the concept of adequate educational outcomes has become relative and shifting, with higher expectations for some groups of students than for others.

The rise of tests as a mechanism to sort students has generated other conceptions of adequacy that are somewhat different from vocational conceptions. With the development of standardized achievement tests, the one obvious conception of adequacy has become performance on grade level: for example, the criterion that all children should be reading on grade level and that all children below grade level should be given whatever additional instruction is necessary. To some extent, of course, tests are used for this purpose, to decide which children should receive compensatory and remedial instruction. However, given the absence of any deep commitment to compensatory education, tests have historically been used more frequently to rank pupils and to specify which of several curricula is appropriate, serving to conform the class ordering of pupils rather than to narrow the variation in cognitive outcomes.

We conclude, therefore, that the conceptions of adequate educational outcomes have shifted, historically, with changes in the purposes of schooling; as the schools have become increasingly vocational, adequacy has also come to be defined in vocational terms (though with residues of earlier goals present as well). With vocational goals linked to labor markets that are fluid and changing, the concept of adequacy has also been shifting and relative. Finally, educational adequacy has historically been connected to the class and racial biases of the schools. Given these conditions, it is difficult to find any clear likelihood that a fixed, unitary, and absolute conception of adequate educational outcomes can be established.

VI. Understanding the Persistence of Inadequacy

The historical record poses a tough puzzle. Despite constant discussion about the adequacy of education, and recent attempts such as the National Assessment of Educational Progress to define criteria, we have no agreement on what constitutes an adequate education and no idea of how to establish adequate schooling for all Americans. This puzzle raises the question of whether it is in some way impossible to derive a concept of adequacy.

When we examine the current angst over the adequacy of education, there seem to be several distinct strands, each of them with historical antecedents:

(1) Middle-class parents are complaining that the schools are inadequate because they can no longer use the schools to guarantee their children middle-class jobs—both because college attendance can no longer guarantee middle-class jobs and because the increasing cost of schooling means that middle-class parents fear that they will be unable to get their children through college (and increasingly graduate school).

(2) Black parents (and to an extent Hispanic parents) are complaining that the schools are inadequate for their children—that black educational attainments still lag behind those of whites in both years and quality of education and that the schools demean rather than support their children.

(3) Some generational tensions have emerged, particularly over the misbehavior of lower-class youth as manifested in juvenile delinquency, teenage pregnancy, youth unemployment, and the alleged decline of the work ethic among young people. The causes of such phenomena are complex, of course, but since the schools historically have been viewed as having social and moral responsibility, as well as cognitive and vocational responsibilities, any failures of young people are readily attributable to the schools.

(4) Complaints about declining standards at every level of schooling charge that schools have become inadequate because they now fail to teach students anything—or fail to teach as much as they used to teach—so that high school graduates and even college graduates remain illiterate and uninformed. In turn, declining standards have been variously blamed on expanding educational enrollments (bringing into the schools students who are somehow unfit for education), on incompetent teachers and faculty, and on the failures of parents to socialize their children for school.

(5) The schools have been consistently attacked for their vocational inadequacy. They are blamed for vocational irrelevance and for overeducating, reflecting the current view that adequate education requires all school leavers to be trained so they can find immediate employment.

(6) Under the Reagan administration, with its efforts to reduce public spending for social programs, and under the pressure of state and local taxpayer's revolts that have similarly tried to reduce public expenditures, efforts to establish adequate spending levels mean reducing spending down to minimally adequate levels.

(7) From the vantage of those groups that have been pariahs within the schools—minority students, lower-class children, the handicapped, Hispanics and others for whom English is not their native language, those living in poor districts—establishing adequate spending and education levels means increasing spending up to some acceptable level, ill-defined but clearly greater than the resources now flowing to these groups.

(8) From the vantage of those who have criticized the decline in teacher qualifications, one solution is to increase teacher salaries, and so again adequacy requires increased resources.

Obviously, these are all very different views of adequacy. More to the point, they are incompatible views. Establishing adequate education for middle-class children may mean denying lower-class and minority children adequate education, and vice versa; reversing declining standards requires reducing the specifically vocational content of education, since a greater vocational emphasis has generally led to diluting the curriculum; reducing educational spending to a minimally adequate level to satisfy conservatives will thwart the efforts of those who argue that adequacy requires more resources, and vice versa. The fact that so many disparate concerns can focus on the inadequacy of schools has given the concept of adequacy its power and longevity; the search for adequacy in education is one that has been joined by almost every conceivable group with something at stake in public education.

But by the same token, the search for a single overriding conception and measure of adequacy has been elusive, precisely because those concerned about adequacy have been talking about very different aspects of education. Discussions of adequacy cannot be separated from the general conflict over public education. Given the various incompatible or enormously difficult purposes of schooling—to pass on middle-class status to the sons and daughters of the middle-class, yet to provide equal opportunity to lower-class children; to educate children for vocational purposes, yet to give them the critical capacities and the wide knowledge of a liberal education; to establish national norms and a national identity, yet to conform to local customs and attitudes; to forge a sense of collective responsibility, yet to provide opportunities for individual advancement—conflicts over public schooling are unavoidable, and disagreement about what adequacy might mean is similarly inescapable. The concept of adequacy in education cannot be a technical notion, defined in terms of absolute dollar amounts, teacher preparation levels, years of schooling, or achievement test scores. Rather, the concept of adequacy has always been and continues to be deeply political, bound up with the deepest divisions over the purposes of schooling.

References

Alger, H. Ragged Dick. New York: Collier Books, 1962 ed.

Ayres, L.P. Laggards in Our Schools: A Study of Retardation and Elimination in City School Systems. New York: Charities Publications, 1909.

Benson, C. The Economics of Public Education. Boston: Houghton Mifflin, 1969, 2nd edition.

Boone, R.G. A History of Education in Indiana. Indianapolis: Indiana Historical Bureau, 1941, orig. 1892.

Calhoun, D. The Education of Americans: A Documentary History. Boston: Houghton Mifflin, 1969.

Clifford, G.J. The Shape of American Education. Englewood Cliffs, N.J.: Prentice-Hall, 1975.

Cole, S. The Unionization of Teachers: A Case Study of the UFT. New York: Praeger, 1969.

Coleman, J. Equality of Educational Opportunity. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1966.

Conant, J.B. The American High School Today. New York: Signet, 1959.

Coons, J.; Clune, W.; Sugarmen, S. Private Wealth and Public Education. Cambridge: Harvard University Press, 1970.

Copperman, P. The Literacy Hoax. New York: Morrow, 1978,

Cremin, L.A. American Education: The National Experiences, 1783-1876. New York: Harper and Row, 1980.

Cubberley, E. The School Funds and Their Apportionment. New York: Teachers College, Columbia University, 1905.

Cutler III, W. "A Preliminary Look at the Schoolhouse: The Philadelphia Story, 1870-1920." Urban Education, 1974, 8, 381-399.

Fitts, D. "Una and the Lion: The Feminization of District School Teaching and Its Effects on the Role of Students and Teachers in Nineteenth-Century Massachusetts." B. Finkelstein (ed). Regulated Children/ Liberated Children. New York: Psychohistory Press, 1979.

Graff, H. The Literacy Myth. New York: Academic Press, 1979.

Graham, P.A. "Literacy: A Goal for Secondary Schools." Daedalus, 1981, 110.

Grubb, W.N. and Lazerson, M. Broken Promises. New York: Basic Books, 1982.

Grubb, W.N. and Lazerson, M. "Education and the Labor Market: Recycling the Problem of Youth." H. Kantor and D. Tyack (eds). Work, Schooling, and Youth: Historical Perspectives on Vocational Education. Stanford: Stanford University Press, 1982.

Grubb, W.N. and Michelson, S. States and Schools: The Political Economy of Public School Finance. Lexington, Mass.: Lexington Books, 1974.

Grubb, W.N. and Osman, J. "The Causes of School Finance Inequalities: Serrano and the Case of California." Public Finance Quarterly, 1977.

Jones, H.M.; Keppel, F.; and Ulich, R. "On the Conflict Between the 'Liberal Arts' and the 'Schools of Education'." ACLS Newletter, 1954, 5, 17-38.

Kaestle, C.F. Education and the New Republic. New York: Hill and Wang, Forthcoming.

Kaestle, C.F. "Literacy and Mainstream Culture in American History." Language Arts, 1981, 58, 207-218.

Kaestle, C.F. and Vinovskis, M. Education and Social Change in Nineteenth Century Massachusetts. New York: Cambridge University Press, 1980.

Krug, E.A. The Shaping of the American High School, 1880-1920. Madison: University of Wisconsin Press, 1969.

Larson, M.S. The Rise of Professionalism: A Sociological Analysis. Berkeley: University of California Press, 1977.

Lynd, R. and H. Middletown. New York: Harcourt World, 1929,

McClintock, J. and R. Henry Barnard's School Architecture. New York: Teachers College Press, 1970.

Strayer, G. and Haig, R. The Financing of Education in the State of New York. New York: Macmillan, 1923.

Tyack, D. The One-Best System: A History of American Urban Education. Cambridge: Harvard University Press, 1974.

Tyack, D. and Hansot, E. Managers of Virtue: Public School Leadership in America, 1820-1980. New York: Basic Books, 1982.

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EDUCATIONAL ADEQUACY: ALTERNATIVE PERSPECTIVES AND THEIR IMPLICATIONS FOR EDUCATIONAL FINANCE

Martin Carnoy

Educational adequacy is an issue in the United States largely because the schools are apparently not performing up to a standard that exists in the minds of the client public (Elam, 1978). Traditionally, the responsibility for doing well in school (or poorly) was placed on the student and his or her family. Even today, with much more emphasis given to institutional responsibility, "disadvantage" or lack of pupil motivation is considered a principal cause of school failure. In practice, therefore, the educational adequacy question cannot be separated from the social background of those in school. I will treat the subject in this context.

To begin with, there are many ways to discuss educational adequacy, and each way, as I shall show, can lead to a different strategy for achieving it. Almost everyone assumes that knowledge taught in schools is significant either in and of itself or as a function of its social value; therefore, raising the learning levels in school is an important social objective, not just an objective for the individuals receiving knowledge through the schools. This is not a particularly obvious characteristic of schooling; yet it is so widely accepted that to depart from it would constitute a major political act — a shift in ideology so profound that it would probably involve major social conflict. Put another way, the case for public schooling — or at least compulsory schooling financed by public funds — rests on the assumption that an educated citizenry has social value that is greater than the sum of individual valuations of education. The state, therefore, cannot leave the choice of how much schooling to take to individuals and their families. The other side of this coin is that once the belief in publicly financed education becomes ideology, "adequate" schooling is rapidly transformed into a right, something that everyone feels his children should have in order to be equal members of the society. Thus social membership and adequate schooling become intimately identified once we assume that schooling has an important social value. This is not the only reason that demands are made on the school system by individuals and their families; by simply identifying the amount of schooling an individual has as an important variable in determining that individual's income or job status, we set up a competition for school places among individuals, and this competition will pressure the schools to expand, improve, and so forth. But it is the social value of schooling over and above its value to the individual that creates the conditions for defining a social "minimum" of what people should learn in school — and of educational "adequacy" for different groups in the schools.

Before going on to develop a definition of this minimum level of education and of educational adequacy in general, I must clarify two more important sub-issues. First, there is the question of who actually does the defining of what goes on in school, including the idea of adequate schooling. In most work on education in the United States, it is generally assumed that policy is made in the context of consensus, i.e., of the popular will. Professionals, including school administrators and teachers, are subject to that will and must, in some sense, respond to it. Whether it be in the form of financial decisions, parental pressure, or social movements (for example, in recent years, civil rights, the women's movement, and "back to basics"), the will of the citizenry pushes the schools in particular directions. Hence "adequacy" is rooted in a social consensus. In the first part of this essay I shall, in fact, go along with this idea: I shall accept the consensual nature of any notion of adequacy and concentrate on identifying the different possible notions that form an intellectual/ideological basis for that consensus. But in a later section I shall abandon this assumption and discuss the implications for our analysis of an educational system that is not at all consensual, a system where *the notion of adequacy itself* is part of a power struggle between different groups in society.

Second, if adequacy and the social background of students are intimately connected, as I claim, the crucial issue of differential versus universal adequacy immediately comes to the forefront of adequacy discussions. Does the public school view students as differentially capable of basic citizenship, where such citizenship is defined as the "adequate" level of knowledge for participating fully in that society? If schooling has a social value, is that social value maximized by bringing each pupil to a differentially defined adequacy, or by raising the adequacy standard for the minimum groups? The answers to these questions have implications for democracy, the definition of citizenship, and for the very nature of the social order.

Having introduced these fundamental issues, let me turn to six different ways of viewing educational adequacy. Each involves a somewhat different definition of the adequacy.

1. *Adequacy as a purely educational goal*. In this concept, educational adequacy is defined as a minimum standard of what an age cohort should know and the number of years, days per year, and hours per day that members of this cohort should have to attend school (which is equivalent, in a sense, to defining a minimum standard of what pupils should know, as I shall argue). This is an *educational* definition, usually based on school curriculum and some average performance in that curriculum by students in school. Thus schools are supposed to bring children up to some "minimum" level of achievement, and the notion of what that level of achievement is can be historically defined. In 1920 the level may have been literacy; in 1950 it may have been an eighth grade reading level; in 1980 it would probably be thought of in terms of tenth- to twelfth-grade language skills and some knowledge of algebra and geometry. In this conception there is no particular reason why a population should have these skills; the fact that most people in the age cohort aged 18 to 25 *do* have them is probably the most important single rationale for treating such knowledge as a minimum for which the schools should strive.

The first of our definitions is based on an average amount of knowledge that seems, to educators, to be a minimum required for pupils. This minimum may not be defined in terms of knowledge itself but in terms of proxies for knowledge, such as years of school attended, days attended per year, hours per day, pupils per teacher, quality of school buildings, number of books in the school library, laboratory facilities, and so forth — all on the assumption that the more time spent in school and the more spent on the pupil while in school, the more the pupil will learn. The first question we have to ask, then, in assessing this definition, is whether the assumption that increased time in school and increased resources per pupil, used so widely by educators to define adequacy (and implicitly also defining the relationship between adequacy and financial requirements), are actually measures of increased learning (knowledge).

The assumption that increased time in school increases achievement is implicitly under attack when it is claimed that certain groups of high school students read only at an eighth grade level or when the press features vandalism and violence in urban high schools. But there is powerful evidence, despite these critiques, that more time in school does increase achievement for all groups. Let me just cite just one study that I conducted in Puerto Rico in the late 1960s and early 1970s (Carnoy, 1970), using achievement test scores of pupils in all twelve grades of Puerto Rican schools. The unusual aspect of these data is that the same test was given to three grades at the same time, so that it is possible to compare the test scores of pupils in grades 1 through 3, grades 4 through 6, and so on. I made such a comparison, dividing the sample (which consisted of one-third of all Puerto Rican pupils in school in 1967), by sex and socioeconomic groups (five), reflecting differences in socioeconomic conditions of the pupils' parents and therefore the pupils' home environment. The comparison reveals two very powerful results:

First, the achievement test scores both in Spanish language and math show about a one-year gap between the lowest of the five socioeconomic groups and the highest; that is, pupils with the highest socioeconomic background have the same score in the second grade as the lowest socioeconomic group in the third grade, and the difference begins to spread slightly only in the last three years of high school. This finding implies, of course, that all groups increase their test scores over time and at about the same rate.

The second result is that in trying to explain what school variables are important in affecting achievement (what economists call "production function" estimates) in Puerto Rican schools, where time spent in school varies greatly between urban and rural and even within urban settings (many schools were in split session), the single most important variable is the number of hours the pupil attends school per day. Although comparable estimates are not available for the United States, we would expect the same results in the achievement test score gap (there is some evidence from the City University of New York's open admissions policy that non-high school graduates are about a year behind high school graduates in their college performance), and possibly similar results on number of days of school attendance annually, if there were enough variation in those figures to constitute an important variable. One question to ask, for example, is whether pupils who attend school more months per year (during summers) do significantly better than those who do not. Thus, as far as the amount of learning of school-designated curriculum is concerned, it seems reasonable to assume that more time spent in school -- either days per year or hours per day or years in a lifetime -- increases learning. Boarding school with supervised evening homework periods might be considered as an example of increasing the number of hours per day in school.

As for the evidence on the achievement effect of increasing the number of teachers or capital expenditures per pupil, the case for increased resources per pupil provides some interesting possibilities. Logic dictates that very small classes with good facilities should increase learning in a given amount of time and hence mean greater probability of educational adequacy. Glass and Smith (1979) suggest that reducing class size does increase pupil achievement significantly in both elementary and secondary schools, but in the range of reasonable reductions (from 30 to 25 or from 25 to 20 pupils per teacher), the effects are small, only about 2 percentage points of achievement score. Although it appears that the practical significance of reducing class size across the board is limited, the Glass and Smith findings have two important implications: First, since increasing class size to larger than 40 pupils per teacher has almost no effect on achievement scores, having a few pupils in small classes and the rest in large ones would result in higher mean scores than having all class sizes the same. Second, their results imply that research into what makes small classes better could yield insight into improving teaching at all class sizes (Cohen and Filby, 1979). Increasing other resources per pupil, such as computer assistance, also present possibilities of increasing achievement, particularly in mathematics (Jamison, Suppes, and Wells, 1974).

To some extent, then, improved "quality" of schooling (as measured by increased inputs per pupil) is a proxy for increased learning or knowledge, but the proxy should be used with care, specifying clearly the components of those increased inputs that do increase learning.

2. Adequacy as improved internal efficiency. Is the formal educational system doing as well as it possibly can given the resources it has? This question assumes a somewhat different definition from that inherent in the above discussion. Now we are asking whether the problem is not additional resources but the way existing resources are being used. Is education adequate in terms of the curriculum, organization of instruction, teacher training (type of teacher training, not amount), selection of teachers for different groups of pupils, etc.? Whereas this question has often been posed in terms of increasing the resources per pupil -- bilingual education programs, for example -- I would like to treat the issue here in its "pure" form, i.e., as the same amount of resources (or even less resources) more effectively used. I define "effectively" as the overall efficiency of educational resources, or their effectiveness for particular groups, which immediately raises the equity issue. That is,

given the differential performance of pupils in school and the fact that this performance is significantly correlated with social class background (Sewell and Hauser, 1974; Bowles, 1972; Bowles and Gintis, 1975), no discussion of resource effectiveness in education can escape the question: effectiveness for whom? Thus I shall divide the definition of adequacy as internal efficiency into two parts. First, I shall assume that there are no equity constraints on efficiency — that all children are individuals whose only identification is their school ability. Their individuality, then, has no political identification. They, or their parents, cannot make claims on a group basis. The question now becomes one of deciding whether the school or school system is providing the most learning it can given the resources it has. Are schools efficient? Could they provide more adequate education with what they have, or with even less than they have? This definition of adequacy is implicit in voucher plans and the present emphasis (in the Packwood-Moynihan tuition tax credit bill, for example) on private versus public schooling.

There are two parts to this issue (or, perhaps, two ways of looking at it):

First, would schools do a more adequate job of shifting their resources from low- to high-performing children or vice-versa? Traditionally, pupil have been tracked as soon as a level of school became sufficiently heterogeneous that their initial capabilities were evident. At first this tracking took place by type of schools (this system continues in Europe), but, with the emergence of comprehensive high school, tracking is accomplished in a single administrative entity. Today a large high school may have as many as four tracks for principal subjects like English and mathematics. Should the curriculum and resources of the school be designed to provide a very low level of training for the least "capable" children? If so, schooling becomes for them a "holding operation" until they are old enough to find a job (any job). Should the school, at the same time and as quickly as possible, push the "brightest" children to the highest level of achievement they can attain in their twelve years of primary and secondary education? Or should administrator and teacher time and effort be directed toward increasing the achievement levels of those farthest behind, leaving the brightest children to learn with less school attention? The suggestion implicit in these questions is, of course, that there are alternative possibilities for administrators and teachers (even within a single classroom), and the results of such choices makes a difference in the results achieved. At the same time, definitions of adequacy are implicit in the use of resources within a school system, within a school, and within a classroom.

Policy-makers should be aware that the reward system for administrators and teachers may very well influence the above choices. For example, if an administrator is rewarded for the average level of achievement on a state test (Regents Examinations in New York; the California Achievement Test), it may very well be "easier" for him or her, given the traditional curriculum and the way teachers are trained, to concentrate on moving the most advanced pupils even farther ahead than to try to raise the mass of dullards above their low achievement levels. This would constitute an inverted "decreasing marginal return" argument in that those with the most "cultural capital" (Bourdieu and Passeron, 1979) would yield the highest pay-off to school administrators, while those with the most to learn (relative to the average) would yield the lowest return. I do not suggest that providing the already bright with increased resources is the most efficient way to raise average school achievement. There is, however, a predisposition in our society, inherent in the curriculum and in teacher training, to enhance the already talented. The whole philosophy behind individual competition and our assumptions about "success" tilt administrators and teachers — and even the present national political administration — toward a policy that *assumes* it is easier and therefore more efficient to raise average achievement through talent enhancement than it is to bring the lowest capabilities closer to an "average" level.

Second, we can look at the adequacy-through-efficiency issue in terms of how well the school system as a whole does *with each capability group*. This means that we accept differential capability groupings and determine whether the school system is allocating resources "adequately" for each group. Is schooling efficient for low achievers, given the resources available? For high achievers? Again, the feeling in certain circles nowadays is that private school could be more efficient for both groups because competition for students by such schools would assure the highest possible achievement, no matter what the level of cultural capital brought into the school. Adequacy in this definition would be the value added by the school to the pupil's level of achievement at the beginning of the year or at entrance (the contribution of a particular high school training, for example, to those of different achievement levels entering the ninth grade). Production function studies by economists of education (see Mood, 1971; Bowles, 1970; Levin, 1971; Carnoy, 1971; Alexander and Simmons, 1975) provide us with considerable guidance in answering the above questions. Holding initial achievement constant, Levin, for example, finds that the teacher characteristics most important in explaining higher achievement for black high school pupils are different from those explaining white pupils' higher achievement. I have reported similar results for Puerto Rican students (in Puerto Rico), after examining the differences between low and high socioeconomic class students (Carnoy, 1971). So an "efficient" allocation of existing resources for one group of students may not be efficient for another. However, given teachers' unions and seniority, administrators may have little choice in the kinds of teacher characteristics available for allocation. The system of teaching and learning may be largely locked in place. Adequacy, in terms of allocative efficiency for different groups, may be highly constrained within public schooling, especially because of the defensive economic position of public school teachers and the historical selection system that created the existing teacher corps in the first place. Yet it is unclear that private schools can be any more creative than public schools in dealing with this issue of differential efficiency of resources for different groups. Much more likely, a private school will have a particular way of increasing achievement and will apply that method to all students. In the voucher models offered by various theorists (see Levin, 1980, for a summary), parents will search for the school whose teaching method is most likely to improve their child's achievement, but the costs of search may be very high for most parents.

In any case, adequacy as a value-added issue and as a differential value-added for different groups issue, was very much in the policy debate a decade ago. The debate has definitely influenced current thinking.

3. Adequacy as internal efficiency/equity. I can now introduce the other part of the internal efficiency discussion. Let me measure efficiency in terms of equalizing outcomes. In one view, I can define adequacy as a concept in which the implicit role of public schooling is to make as equal as possible the "value added" to knowledge for all students (equal treatment of every group). I call this the equity view . In a second and different version, the definition of adequacy is the equalization of absolute outcomes at the end of the schooling process (schooling as equalizer).

How can resource allocation in schools and the amount of resources available to schooling be relevant to these adequacy concepts? Before tackling the empirical evidence on this question, let me mention that the philosophical foundations of the equity and equality discussion in education go to the very heart of the philosophical basis for collective society, and also to the political core of collective social arrangements. What is the role of the public sector — of the state — in society? The equity version sees the state as supplying education and supplying it in a way that everyone gets the same access to it, even in terms of how much learning they do. Legal decisions like Brown and Serrano reflect the equity view. They also imply that the state (the public sector) belongs to everyone equally even though different individuals and groups may put different amounts of taxes (resources) into the state's treasury. State expenditure distribution is therefore based on a political/legal view of the state as reflecting the general will and therefore being obligated in its provision of services to all members of society equally. This differentiates it from the economic marketplace, where individuals and groups are rewarded according to their "contribution" to production. Thus in the equity view of adequacy, civil society and the state have a different relation to the individual: In one, individuals are not treated equally; in the other they are. Again, equal treatment has generally been interpreted as the provision of equal financial resources, although, as we have pointed out, there is simply no evidence that equal resources mean equal gains in test scores. I shall therefore examine the adequacy-as-equity question in terms of test score gains for different achievement groups rather than equal resources per pupil spent on schooling.

The equalization concept of adequacy assumes that the role of the state is merely to supply public education equally, or to supply it in a fashion that different groups of individuals learn the same "amount" while in school. On the contrary, the school is to be the instrument for "correcting" the inequities of the social system — particularly children's out-of-school learning possibilities. In this "compensatory education" concept, adequacy comes to mean the school system's ability to increase the achievement levels of the "disadvantaged" more rapidly than those of high achievers, or to increase such achievement to an "average" or "normal" level, based on the premise that everyone except those with serious learning "disabilities" is able to achieve such acceptable levels.

What do we know about the educational system's efficiency in achieving such equity or equalization? The Puerto Rican findings I have reported (Carnoy, 1971) show that both low and high achievers increase their scores on achievement tests at about the same rate, at least through primary and junior high school. In other words, the gap does not appear to be increasing across the three-grade blocks in which each test was given. Similar data are not available for the United States, but we can again turn to the production function research to get some idea of projected test score gains. Estimates of such functions measure the relationship between characteristics of teachers, plus other school inputs and pupils achievement, holding initial achievement constant. These estimates have been made for different groups of pupils attending school, hence we can use them to "project" achievement increases for blacks and Spanish-surname pupils in the U.S. and for lower social class pupils in Puerto Rico, assuming "optimal" combinations of resources for achievement "production" in those groups or even increases in resources in an optimal fashion. The results of the projections show that it is certainly possible to achieve equity in the gains of different groups with given resources.

When we use the same estimates for assessing the possibilities of equalizing test scores between low and high achievers, the results are far less encouraging. Rearranging existing resources or increasing the "quality" of teachers (their formal preparation and experience) does raise achievement levels, but the increase in achievement for very large increases in inputs is only a small percentage of the gap between white and black scores, white and Spanish-surname scores, or lower and higher social class scores (Carnoy and Levin, 1976, Chapter 8). Nevertheless, increasing the quality of educational resources for low achievers may be a much more cost-effective way of increasing school achievement than increasing the amount of time spent in school (see the first definition of adequacy). We do not get impressive overall score increases by allocating more of the school's resources to the task of raising low achievement scores. The same is true of increasing the quality of resources used to teach low achievers. Nevertheless, the application of these strategies may be a less expensive way of improving low achievement scores than equalizing educational results through increased time in school.

Therefore, we get a double message from the empirical results: It is possible to do some equalization of achievement through reallocation of resources within the school system, but the changes are not going to be very great. In other words, increased efficiency in the present context of American schooling is not going to go far in fulfilling an equalization concept of adequacy.

The problem is serious largely because the selection for further schooling is based on such achievement test scores and because participation in low-track math and English courses is a verification of pupils' "stupidity." Thus relatively small differentials in primary school performance are turned into increasingly more serious differentials in junior high and high school, where a pupil's poor academic performance is repeatedly certified as such by the courses and treatment he or she receives. Adequacy as equalization becomes a real issue because *it is equalization and not equity that parents of low achievers really want*. Only through equalization can pupils get into high school academic tracks and then into four-year higher education institutions.

4. *Adequacy as external efficiency: social functioning requirements*. The three definitions offered above have concentrated on adequacy defined in academic performance terms. The rationale behind these definitions hinges either on some abstract social goal, such as an educated citizenry, or an organizational ideal (efficient use of resources, for example), or political philosophy (equal treatment of each citizen by the State; the State as equalizer of unequal individuals). But we can also define adequacy in terms of some *concrete* social aims. The first of these is adequacy as measured by some minimum requirements to function adequately in a modern society. The minimum requirements are not measured in academic terms but in concrete literacy levels "demanded" by various social institutions. What level of literacy is necessary for one to function in U.S. society today? In the early Seventies, Right to Read, a national project administered by the U.S. Office of Education, attempted to define educational adequacy precisely in these terms. The Harris Poll had found, as part of the Right to Read Commission's investigation into the subject, that many college-educated Americans were "functionally illiterate." Harris measured functional illiteracy in terms of the ability to fill out certain common application forms correctly (a driver's license application, a job application, a bank loan application, etc.). The possible ambiguities in the forms themselves were never questioned by the poll's sponsors; rather, the forms were assumed to be representative of the level of reading comprehension required of Americans on a day-to-day basis. The fact that the bank loan application was so difficult to understand that many college-educated people had greater than 10 percent errors on it was not considered a condemnation of the form but of the college-educated person's ability to read.

In any case, functional literacy is certainly one external measure of educational adequacy. If every pupil in school for more than eight years is not able to read everday literature, and reading is considered an important social skill, the schools are not educationally adequate, at least in terms of what might be deemed a fundamental school function. Yet, as the Right to Read research showed, the definition of functional literacy — or for that matter, the definition of a "functional level" of any other social skill — is rife with ambiguities. Literacy in an advanced society can mean anything from being able to read warning signs or directions for the operation of tools and machines to the ability to fill out complex applications or read and understand books and magazines on a variety of subjects. Alternatively, we might consider that, in a democracy, political "literacy" is as important as filling out bureaucratic forms. How much about politically relevant topics should the "adequately" prepared American know or be able to absorb? What about consumer protection adequacy, or adequate knowledge about individual and group rights at the workplace? In a national society, what should the minimum requirements be for historical knowledge and social studies? What should the minimum citizenship demands be on even those people born in the United States? These are all measures of educational adequacy as calibrated by social requirements. In European countries a pupil's preparation in some of these "citizenship" adequacy measurements is taken much more seriously than in the U.S. History and social studies (which include social geography, economics, and government) are considered an important part of a secondary school student's intellectual development, largely because most European nations have centralized education ministries, which tend to adopt national goals. Finally, we can ask to what degree scientific understanding is essential to a modern society's minimal "functioning" requirements. Should every member of U.S. society be able to comprehend a variety of physical, chemical, and biological principles as part of living in a scientific age?

All of these questions are social in nature and require social decisions. Who will make the decisions?

5. *Adequacy as external efficiency: the job market*. Probably the most common "measure" of educational adequacy aside from the average number of years spent in school is the kinds of jobs people with different amounts of schooling get and the income they receive. It is generally believed that young people below a certain level of education or training have a very low probability of being employed. As far as the job market is concerned, they have an *inadequate* level of education. An adequate education would allow them to get a career job, or at least to be employed in a series of jobs. Another measure of adequacy in the same genre is the income associated with different amounts and kind of schooling. The amount of schooling required to earn an incme above the "poverty level" could be considered "adequate."

Two related bodies of literature in the economics of education can help us understand this concept of adequacy. The first considers the relation between education and employment (Blaug, 1973; Carnoy, 1978). The second views education primarily as an important individual characteristic contributing to wage differentials among labor force members (for a summary of the extensive literature in the field of economics of education, see Carnoy, in press, 1982).

There is little doubt that a higher level of schooling contributes to an individual's employability. Thurow and Lucas (1972) argue that this fact stems from increased trainability: Employers tend to view better-educated applicants as more easily trained in various work skills, including reliability. There is also no doubt that, in an economy like that of the U.S., persons with less than a completed high school education are most likely to be unemployed. The question before us, however, is not whether increasing an individual's education will result in greater possibilities for employment. Rather, can we reduce the unemployment *rate* by providing everyone with "adequate" education? To put it another way, is there a minimum amount or kind of education that would reduce the unemployment rate? It is usually assumed that the answer to both these questions is yes. We observe many jobs that are not filled or are difficult to fill because applicants with the "right" training are not readily available. At the same time, we observe many unemployed persons with low levels of training and poor educational preparation. Logically, if members of this latter group were given "adequate"" education and training, the unemployment rate would be reduced.

In both theory and practice, however, the concept of reducing the unemployment rate through more adequate education (and training) is misplaced. At this moment (February, 1982), the unemployment rate as determined by the Department of Labor is 8.5 percent, which means that more than 9 million Americans are unemployed. Many of these are youths, and many are youths with less than a high school education. The average rate of unemployment in the post-World War II U.S. has been about 6 percent (as compared with rates of 2-3 percent in Western Europe during the same period). Again, it is certainly true that youths with the least schooling (who often belong to a minority race or ethnic group) have always had a significant share of this unemployment. But, at the same time, an increasing number of even more briefly schooled unregistered aliens are finding jobs at wages below the legal minimum throughout the nonunionized sectors of the economy. Some estimates of employed unregistered aliens run as high as six million. Is schooling, therefore, the problem? Or is the core of the problem in the labor market itself? Would increasing the average level of schooling of the presently unemployed make them more employable?

One group of economists advises eliminating welfare payments and reducing the minimum wage as a means of increasing employment. There is little doubt that these measures *would* tend to increase employment more effectively than increasing the unemployed person's education. The problem — as I have argued (Carnoy, 1978) along with others — is primarily one of labor markets, not of inadequate schooling. Yet lowering the minimum wage and forcing people to accept it or starve is, in our society, more likely to produce increased crime than a more disciplined, cheaper labor force. The issue for the presently unemployed is not simply one of getting a job but of getting a job at a livable wage. Citizenship in an advanced, industrial society has come to mean, for the vast majority, the right to a certain level of consumption, even if that requires committing crimes to achieve it.

We know that in an economy marked by consistently high unemployment rates, increasing the level of education for those who are unemployed may make them more employable, but unless average wages fall significantly, the "free market"" will not increase the number of workers it employs per unit of capital. We are thus talking about increasing the average education level of the difficult to employ and simultaneously lowering the wages they can receive, perhaps even below the government-established poverty line. "Adequacy" takes on a strange meaning in this context. In my opinion, adequate education for full employment is a useful concept only within the context of a full employment policy based on adequate wages. Thus adequacy would have to pervade both the educational and work sides of the equation.

Under that kind of policy, adequate education would be directly tied to guaranteed wages in guaranteed work, and educators would have a much clearer picture of what adequacy for employment means.

The doubtful relationship between increasing the schooling level of the unemployed and lowering the unemployment rate is carried over to the analysis of education and income. An adequate education could be defined as one that permits everyone in society to earn a living wage. There are some problems with this notion if, as indicated above, the only way to employ everyone in a particular society is by lowering the individual wage below subsistence. This would imply that "living wage" should be defined in terms of a family wage with multiple income earners and no non-workers (no children below working age). In that case "economies of scale in consumption" might allow multiple worker units to subsist where individuals could not. But let us assume that everyone can be employed at above subistence in a market economy. What do we know about the relationship between schooling and income that would allow us to make some policy formulations regarding an "adequate education" in income terms?

Despite the study by Jencks *et al.* (1972) purporting to show that the relationship between education and economic success was not significant, it is generally agreed that even their data showed significant correlation between the two variables [see Jencks's reassessment of his own work (1979); see also Blaug (1973)]. In that sense, education *is* adequate in terms of economic success. That is, for most Americans who undergo schooling, the experience results in higher incomes they would have without it. The *reason* that this result obtains is subject to considerable discussion, but the fact that education and higher incomes are still correlated when other factors such family background, age, sex, and race are factored out is, in and of itself, important to those going to school. It is certainly one reason why young people stay in school and try to do well enough to enter a university.

As I shall show in detail below, however, the economic payoff to American society of investing in secondary education (in terms of benefits relative to costs) has been declining (Carnoy and Marenbach, 1975). As the payoff to college education decreases, even the "option value" that completing secondary education gives one — the option of attending college — is probably declining as well, beginning with the decade of the seventies. Thus we might say that in economic terms education is becoming less adequate: Going to school does not yield the returns it used to, at least from society's point of view. Since secondary education is "free" (in the sense that the individual family has to pay taxes whether the children attend public school or not), private returns remain high relative to costs, especially as youth unemployment increases, and therefore the alternatives to going to school become less appealing — certainly less renumerative. Young people thus remain economically motivated to take increased schooling even as the social payoff to increased schooling in the labor force as a whole may be declining. The effect of reducing taxes and simultaneously cutting public expenditures on schooling would be to lower private rates to secondary education. Parents would be forced, increasingly, to subject their children to less varied schooling in larger and larger classes or opt for private school, thereby bearing previously public costs of schooling themselves. This answer to the declining social returns of education would mean declining enrollments in higher education and increased dropouts from secondary schools. The most important implications, however, would be those related to equity and equality, for the social payoffs to investment in secondary and higher education may well be lower for minorities and women than for white men (Carnoy and Marenbach, 1975). I shall develop this point in the next section.

6. Adequacy as external efficiency: equity and equality considerations. In a previous definition of adequacy, I separated the notions of equity and equality. Using this same separation, one can apply these notions to a concept of educational adequacy as it relates to the success of different groups of students (low achievers/high achievers; women/men; minorities/whites-Anglos; low socioeconomic class/high socioeconomic class) in the labor market. I have argued that if we apply a general labor market criterion, education has been adequate for average American youth in the sense that education is positively correlated with income; the income payoff to high school graduates as an investment has compared favorably with the return to other investments. To conclude that education is equity-adequate in such income terms we would have to show that the income payoff relative to family expenditures (private costs) -- a measure which we call the "private rate of return" -- is equal for different groups in society. For the most part, however, this does not appear to be true. Historically, the private rate of return on investment in secondary education in the U.S. has been higher for white males than for other groups (however, in 1969, the rate for white females was higher than for white males). And the private rate of return on investment in college for white males has been higher than for all groups except black females (again, 1969 is an exception for white females). Thus white males, already the highest paid and best-educated group in the labor market, appear to get a higher return on their investment in schooling than other groups, with certain notable exceptions. In economic equity terms, then, an adequate education policy would imply greater subsidies to black males and females' secondary education than for white males or females and larger subsidies to black males' college education than for other groups (see Carnoy and Marenbach, 1975, Table 1, for details on the rates of return).

The equality issue is different. For education to produce equality, the private rate of return to low income groups must be considerably higher than the return to high income groups (for example, white males). This fact implies that subsidies have to be used to increase private rates of return to low income groups, making them even higher than the return to white males. Low interest loans and affirmative action scholarships for minorities represent precisely this kind of equalizing effort at the college level. But the problem lies in the fact that the high school performance of minority students is generally so low that a relatively small percentage even go on to four-year colleges and universities, and when they do it is to those institutions from which graduation no longer yields a high return. Raising performance at the high school level and even subsidizing minority students who do well in high school seems, therefore, to be crucial to labor market equalization through schooling.

However, for those with low levels of schooling and performance in school, the equalization issue is more complex. The reason for higher incomes associated with higher levels of schooling now becomes crucial. On the one hand, neo-classical economists assume that there is a close relation between wages and productivity. Hence the higher incomes associated with schooling reflected the higher productivity of those with more education. Low income means low productivity. Poverty is an explicit expression of a lack in resources, including human resources. Investment in such resources would result, therefore, in higher productivity and higher income. But if this assumption of a close relationship between productivity and income is questioned, the correlation of education and income does not necessarily lead to the conclusion that more education will lead to higher income. Thurow and Lucas (1972) raised precisely this issue when they proposed their "queue theory" of education and jobs. In queue theory certain incomes are associated with certain jobs, partly because those jobs allow for higher productivity, but also because they are higher in social status. Thus many so-defined "women's" jobs may be highly productive, but because women occupy them they pay relatively low wages. In a male-dominated society, women's jobs have much lower status than men's jobs. For Thurow and Lucas, how much education and training people have, their sex and race, plus their social class and other attributes, both inherent and attainable, determine their places in the job queue. The most "trainable" people are near the head of the queue and get the highest paying, most desirable jobs. Providing the poor with more education and training would move them up in the queue only if they got more education and training than someone else. In that case, the someone else would be pushed into a lower income, less desirable job. Since productivity and income are a function of available jobs, a group's getting more education and training only means that the people in that group will push some other individuals into their previous poverty position. Thus education does not necessarily create productivity; it only gives access to productive jobs.

Thomas Ribich (1967), Bennett Harrison (1972), and others have also argued that the major assumptions of the War on Poverty, that education and training are especially effective means of helping people to lift themselves out of poverty, are incorrect. Their results are based on the empirical evaluation of 1960s job-retraining and compensatory education programs. In brief, they confirm that while these programs may teach real skills, the labor market in which the poor operate either does not need the skills taught or is not willing to put additional value on them. In other words, the jobs to which the poor have access, even with higher school performance or greater job skills, are low income jobs, and their greater skill or school performance does not command higher income. For the present poor to do significantly better, Harrison concludes, requires changing either the kinds of jobs they have access to or the incomes associated with their jobs.

Adequate education for those destined for low-income work and its correlate, high unemployment, therefore presents special problems. In addition to those problems we have discussed, there is the fact that a high percentage of persons with low income and high unemployment are minority group members (both men and women) and non-minority women. Women have, on the average, higher education than men working in the same or similar jobs. Yet women's pay, even correcting for educational differences, age, and other factors, averages about 55 to 60 percent of men's pay in the private sector and 70 percent of men's pay in the public (Carnoy, Girling, and Rumberger, 1976). Would more "adequate" education solve discrimination against women in the job market? Some theorists have argued that because of sex stereotypes in school, girls study certain subject matter (e.g., secretarial) that lead them into certain kinds of jobs. Hence the greater emphasis in recent years on science and math for girls. However, sex stereotyping in school is only part of the problem. It is in fact more difficult for women to get higher paying jobs in the public and private sectors (particularly the private) simply because they are women. Similar statements can be made for minority males. In a recent book, Michael Reich (1981) shows not only that discrimination against blacks exists in the U.S. labor market but that its decline in the 1960s, followed by renewed emergence in the 1970s, is much more a function of political pressure than improved black education. He makes clear that discrimination is profitable for capital. Thus if a large group of workers, be it blacks or women, are willing to work for lower wages and do the same or similar job as white males, this, everything else equal, raises profits (see also Thurow, 1969).

Adequate education for low-income earners, where adequacy is defined as adequate economic success, thus faces a number of important barriers that have little to do with financing better schooling. Once we break away from the notion that income and productivity are tightly knit empirically, and that therefore the education/income correlation implies an education/productivity/income causality, we see that providing better education for low achievers does not necessarily lead to better job possibilities. Indeed, providing better education for all American youth does not necessarily increase their incomes. This is certainly evidenced by the experience of the last eight years. Average education has continued to increase, but output per employed worker (productivity) has hardly increased and average real incomes have fallen more than 15 percent. With higher average schooling, the average American worker is able to consume less in 1981 than in 1962 (Economic Report of the President, 1980, Table B-36). These facts prove nothing about the relation of productivity and education, since the capital investment rate per employed person has also declined markedly since 1973. Yet they do indicate that raising the educational level of the labor force will not by itself increase labor productivity or income.

To put it another way, economists of education such as Ribich (1967) would claim that the rate of return on investments in the education of the poor is low as compared to other investments. There are studies indicating that the social rate of return on investments in secondary education for all groups together fell steadily in the period 1939-69 (Carnoy and Marenbach, 1975), while the social rate of return on investments in university education held steady. The former fell from 18 to 10 percent for white males, from 10 to 9 percent for black males, and from 13 to 8 percent for white women; they rose from 5 to 8 percent for black women (largely because of rapidly increased public sector employment). Meanwhile, social rates of return on investments in university education held at 11 percent for white males, rose from 6 to 8 percent for black males, fell from about 10 to 8 percent for white women, and held at about 11 percent for black women. The falling rate of secondary education return (a fall that certainly continued in the 1970s) implies that the payoff on improving primary and secondary schooling is probably falling in terms of simply increasing the quality of secondary graduates who do not go on to college. At the same time, the possibility that college rates also began to fall in the 1970s (see Freeman, 1976), and the fact that they were already quite low in 1969, means that even increased access to college because of more adequate secondary schooling may, by 1981, have had a very low payoff compared to other investments. In purely economic terms (increased incomes), then, even if we assume that improving education of low achievers (secondary school non-finishers) leads to higher productivity and income, financing adequate education for this group (as well as for students as a whole) may have a very low social return.

Let us go one step further. The majority of low income earners in the U.S. are minorities and women, as we have noted. The single most important sector of employment for college-educated women and minorities of both sexes is the government (Carnoy, Girling, and Rumberger, 1976). About 50 percent of professional women and 50 percent of minority male professionals were employed in the public sector (federal, state and local) in 1970. With drastic cuts in public sector employment expected in the 1980s, we can also expect that the economic payoff for college education for women and minority men will fall,especially since relatively few women and minority professionals are employed in military-related production. This means that the expected rate of return to college should fall even more rapidly for those groups most likely to be relevant for investment in adequate education at the primary and secondary level (in the hope, for example, that they would have greater access to college training).

Equalization of labor market opportunity through education, then, faces great difficulties, many of them related to the structure and nature of the labor market and to changes now occurring in that market. There is serious question that — given this structure — it would be possible to have more than limited impact on equalizing economic opportunity through improving the education available to presently "disadvantaged" groups. As in the case of employment/unemployment, it seems that the principal role education can play is in a situation where there is a serious movement toward equality of economic opportunity and where adequate education is part of that serious movement. It is difficult to see what role adequate education can play when the general trend outside the educational system is to make economic opportunity more unequal. Certainly, "reprivatizing" the economy and shifting government spending from social services to military spending is not going to improve the employment and income opportunities for groups now at the bottom of the ladder.

Financial Implications of Various Adequacy Definitions

Now that I have discussed these different definitions of educational adequacy, let us consider their financial implications. I shall do no actual calculations, although in a more detailed (and much longer) study, these would certainly be possible. Rather, given different definitions of adequacy, I can show how the cost of providing adequate education would be estimated. The different methods of estimation are shown in Table 1.

Some of the detail of such estimates is contained in our previous discussion of adequacy definitions, and some is in studies like those we carried out by Carnoy and Levin (1976, Chapters 7 and 8). But the financial estimates themselves, while important, are impossible without choosing a definition of adequacy, and within a particular definition, deciding what the goals to be achieved are. Two of the definitions are pure "efficiency" definitions, where efficiency is itself defined in terms of achieving a particular goal (in one case, achieving the greatest possible gain in test scores using a given amount of resources and, in the second case (#5 in Table 1) achieving the highest possible income return on educational investment in the given structure of the labor market. The other four imply some other social goals that revolve around the nature of a desirable society. One goal is that everyone has at least a certain minimum level of knowledge; a second, that everyone has a certain minimal capability to live (function) in society as it exists (we shall discuss how this desirable society is defined below). The other goals focus on "fairness," either "equity" or "equality." Once the choice of adequacy definition is made, the estimates of financial costs are relatively simple.

As Chambers and Parrish (1981) show, adequacy definitions have changed historically, and the changes are directly related to the role assigned to education at different moments in U.S. history. In the recent past, adequacy has been seen in terms of absolute levels of excellence as compared, for example, to Soviet education; it has been viewed in terms of equity (a series of court decisions that challenged local differences in per pupil expenditures and educational "quality"), both in educational outcomes and, implicitly, in labor market outcomes; it has been viewed in terms of equalization of outcomes (mastery learning; compensatory education; Head Start); and, finally, during the Nixon Administration, in terms of minimum levels of social abilities (Right to Read).

In the 1980s we are faced by a "new" definition of adequacy that combines the idea of educational "excellence" popular in the 1950s with the internal efficiency concept discussed in Sections 2 and 4 above. This is part of an overall federal government philosophy of reducing its responsibility for equity or equalization or minimum competence and emphasizing, instead, the efficient use of resources to produce the highest overall educational performance, given the resources available. As part of this philosophy, federal resources heretofore available to public education are being drastically reduced, and subsidies to private education are being promoted in the form of tuition tax credits. This latter policy assumes that private schools are more efficient than public in producing educational excellence, that the best students should be given more attention than they have been given in the past, and that even students from groups that have traditionally performed poorly, such as blacks and

Table 1
Methods of Estimating Financial Requirements of Adequate
Education Under Different Definitions of Adequacy

Definition	Goal or Objective	Method of Estimate
1. Educational goals	Successful completion of curriculum; higher test scores; years in school.	Compute average time needed for below norm group to complete curriculum or achieve desired test score; calculate additional cost per pupil for additional time needed times the number of pupils who fall into this category.
2. Internal efficiency	Achieve higher test scores at same cost by better management of resources.	No additional financial cost. Internal reorganization. Improved curriculum.
3. Internal efficiency for equity/equality	a. Equal treatment for all groups in system: equal achievement gains for each group.	Using production function for each "group," estimate increase in costs necessary to equalize gains for different groups in primary and secondary education.
	b. Reduction of variance in performance by raising lower levels of performance relative to higher levels.	Using production function for each "group," estimate increase in costs necessary to equalize absolute outcomes for different groups in primary and secondary education.
4. External efficiency: social functioning.	Desired levels of "social" competency for all citizens.	On the basis of desired goals (functional literacy, political knowledge, etc.), establish educational criteria and proceed as in (1).

Table 1 (continued)

5. External efficiency: overall job market.	Optimum use of resources given job market	Allocate resources on basis of rates of return for different levels of schooling and different kinds of schooling. Only implies increase in costs if rates of return to investment on schooling are higher than on other investments.
6. External efficiency for equity/equality	a. Equal rate of return on investment in school to all groups.	Estimate subsidies needed to equalize private rates of return to all groups. Could mean reduced costs if higher rate of return groups are made to bear fraction of public costs to reduce their private payoff.
	b. Equalization of job and income opportunities through equalization of schooling and performance in school of different groups.	Estimate subsidies necessary to equalize absolute income earned by different groups through increasing relative amount of schooling taken and performance in school. Requires using production function estimates and relationship for each group of income to years of school and test scores.

Spanish-surname ethnics, would do better in private school. Fundamental to this notion is the underlying premise that a free market (as opposed to a system involving state intervention) produces efficiency and equity. There is no "right" and "wrong" to these choices; they are political and should be viewed as such.

The Political Choice of Adequacy Definitions

At the beginning of this essay I argued that discussions of educational adequacy are grounded on the assumption of a ""consensual" society. Now I have suggested that the choice of the adequacy concept used in making educational finance policy decisions, particularly federal policy decisions, is political; i.e., the choice of adequacy is a response to political variables. If the political society is consensual and adequacy is defined politically, the choice of adequacy must be a response to some social consensus of what adequacy should be. Thus, under this assumption, in the 1960s there was a consensus (or at least a political majority) in the U.S. that thought education should equalize economic opportunity; in the 1980s a majority may believe that public education funds should be reduced and private schooling, being more efficient, should carry a greater weight in the overall educational configuration.

This way of looking at education is based on a particular view of the state (i.e., the public sector): what it represents, now it came to be, its relation to the civil society (production and the market), and how it operates. The view posits that the state represents some version of the general will, or at least the general will of those who are concerned enough about what the state does to participate politically. It posits that the state is the expression of the collective will of individuals who give up some of their individual liberty to defend themselves and obtain goods and services not available to them as separate individuals shopping in a marketplace. It posits that the state is neutral: Every individual member of society is equal in the eyes of the state, no matter what economic and/or social position he or she occupies. The state provides services in response to the will of the majority, and since an individual's being in the majority or minority changes over time, no individual will wish to impose on the minority any state action that would be devastating to minority members (the next time around, the minority could persuade enough citizens to join them that they would be the majority and seek revenge). The democratic state, therefore, is an empty shell filled by majority public opinion. This explains its operation.

In my opinion, the view is an inaccurate way of characterizing the American state. On the basis of historical evidence (for example, Williams, 1961; Kolko, 1963), it is just as valid to assume that the state is not a neutral representative of majority will conditioned by an overall vision of the common good but rather a bureaucracy with a particular relationship to economic power. Specifically, an alternative view considers that the operation of the state bureaucracy is conditioned by the overall socioeconomic structure. In an advanced capitalist society like the United States, the state not only depends on the health of private corporations and their profit-making capability for its own revenues, but historically has been committed to reproducing and legitimizing corporate influence over the U.S. economy and culture. That is, the state, while it may claim to be neutral and to treat all individuals equally in its eyes, and while its policies in a politically democratic society may respond to the pressures of all politically influential interest groups, is in essence structurally bound to the inherent unequal division of economic power in capitalist society. Thus, whereas state bureaucracies are much more equitable and equal than private enterprise in their treatment of the poor, women, and minority groups, the state continues to support a capitalist economic, social, and cultural development in which workers needs are subordinated to the needs of capital, women's needs are subordinated to men's needs, and non-whites' needs are subordinated to the needs of whites.

I am not arguing that the state is directly controlled by large corporations that are using it to subordinate workers, women, and minorities. Rather, I suggest that the capitalist state was organized historically as part of the development and extension of an unequal society in which certain groups are favored over others, and that today's public sector still operates in the context of this historical organization, largely because it is still the owners and managers of big business who shape and dominate the American economy (Domhoff, 1967; 1978). On the other hand, American history is also the result of pressure by workers, blacks, women, and youth to increase their economic and political participation. Much of the pressure has been political, and some of it has focused on education. The state, while retaining its inequitable contextual nature, also reflects the historical demands of subordinated groups for greater political democracy (the right of non-propertied workers, women, blacks, and youth to vote, for example); greater economic democracy (greater participation by workers in profits through higher wages; greater participation through increased government benefits, including public education and health care; collective bargaining; equal pay for equal work by minorities and women; greater worker participation in decision-making in the factory and in the home); and greater security against the inequities of the market system (government counter-cyclical policy, unemployment compensation, social security). The American state is thus, *at one and the same time*, structured to perpetuate an inequitable and unequal economic and social structure and to be a site of intense pressure by subordinate groups to *change* the nature of their position in this structure (hence to change the structure itself).

If we view the state in this way, how does that view alter our analysis of adequacy and adequacy choices? I have suggested that the educational system is itself a site of pressure by subordinate and dominant groups to redefine the nature of their positions in the socioeconomic structure. Since formal schooling is an important definer of the division of labor (it is a key institution channeling individuals into different work roles), what goes on in the educational system is generally viewed as important by subordinate groups trying to better their social and material conditions in American society. Minorities have historically viewed schooling as fundamental to their equality with white/Anglo workers; women have recently understood the socialization function that schooling plays in pushing them into certain kinds of low-paying, dead-end jobs. At the same time, I contend that American schooling is *structurally* inequitable and unequal, even though more equitable and equal than the workplace. In other words, conflict over education is taking place within a particular historical structure which conditions that conflict. From the structural standpoint, schooling is adequate if it produces "efficiently" the kinds of skilled and socialized workers needed for maximum returns to capital and the kind who believe in the social efficiency of capitalism itself. The only adequacy question that concerns the state qua capitalist state is whether education is adequate for capital accumulation and the socialization of workers, minorities, and women into the inequalities of capitalist work (see our adequacy definitions in Sections 2 and 5). Minimum social functioning issues would only enter into the state's adequacy concerns if (as in Adam Smith, 1937), such minimum citizen social capabilities were considered crucial to the functioning of the overall collective society.

Yet even minimum capabilities, and certainly equity and equality considerations, do not originate in the state bureaucracy but rather from its just-as-inherent characteristic of necessarily responding to sociopolitical pressure in order to maintain legitimacy. The equity and equality issues are associated with the expansion of education as a response to mass demands for more education (upward social and income mobility demands); to the demands by certain groups like blacks, Chicanos, and women for equal treatment; and to the demands by minorities and the poor in general for a greater share of American material riches. These demands took violent forms in the 1960s and may do so again.

Thus educational adequacy and the finances devoted to achieving whatever version of it emerges, are a function of the pressures of subordinate groups in a particular kind of society: one in which they are dominated rather than dominant. The present political situation is such that the state bureaucracy, challenged only by weakened subordinate groups (weakened in large part because of the failure of the previous compromise — i.e., liberal state policies — to maintain a rapid rate of capital accumulation), is able to impose a version of adequacy that is geared to maximizing capital's needs rather than the needs of those who do poorly in the existing socioeconomic structure. In the present political situation, adequacy has a particular definition and political purpose, just as in previous historical periods it had a different definition/purpose. Now, adequacy means doing better, as efficiently as possible, for those who already do well, with particular emphasis on the efficiency of federal spending. Of course, efficiency is also defined in political terms, and this fact should not be forgotten. Federal spending on education is being sharply reduced, and this reduction has greater impact on the poor and minorities because many of the federal education program were designed specifically to assist those groups the most. Less money for education also affects minorities and women in another way: The education sector is the single largest employer of professional minorities and women. Therefore, cuts in spending means less possibilities of upward economic mobility for these groups.

I have offered an alternative — and probably more analytically accurate — way to look at the American state and the political choices made in defining and financing educational adequacy. To change the definition of adequacy and discuss its financial implications is a political action and requires all the conditions that facilitate political change.

Footnotes

1. The social rate of return (as distinguished from the private rate of return) is defined as the increase in average income associated an increase in the amount of schooling taken (benefits of additional schooling) compared to the costs of that additional schooling, where costs not only include income foregone and direct private costs, but also the public costs of schooling (current and capital costs). For lack of empirical data, other social benefits, such as possible "externalities" associated with a more schooled population, are omitted from the measurement of social returns.

References

Alexander, L. & Simmons, J. "Determinants of Learning in Developing Countries: the Educational Production Functions." World Bank discussion paper, Washington, D.C., 1975.

Blaug, M. Education and the Employment Problem in Developing Countries. Geneva: International Labor Organization, 1973.

Bourdieu, P. & Passeron, J.C. Reproduction. Beverly Hills, California: Sage Publications, 1979.

Bowles, S. "Towards an Educational Production Function." In Hansen, W.L. (ed.). Education, Income, and Human Capital. New York: National Bureau of Economic Research, 1970.

Bowles, S. "Schooling and Inequality from Generation to Generation." Journal of Political Economy, Vol. 80, No. 3, Part II, May-June, 1972, pp. S219-S251.

Bowles, S. & Gintis, H. Schooling in Capitalist America. New York: Basic Books, 1975.

Carnoy, M. "Quality of Education, Examination Performance, and Urban-Rural Income Differentials in Puerto Rico." Comparative Education Review, Vol. 14, No. 3, October, 1970, pp. 335-49.

Carnoy, M. "Un enfoque de sistemas para evaluar la educacion, ilustrado con datos de Puerto Rico." Revista del Centro de Estudios Educativos (Mexico City), Vol. 3, 1971, pp. 9-46.

Carnoy, M. & Marenbach, D. "The Rate of Return to Education in the United States, 1939-69." Journal of Human Resources, Vol. 10, No. 3, Summer, 1975, pp. 312-31.

Carnoy, M., Girling, R., & Rumberger, R. Education and Public Sector Employment. Center for Economic Studies, Palo Alto, California, 1976 (mimeographed).

Carnoy, M. & Levin, H. The Limits of Educational Reform. New York: Longmans, 1976.

Carnoy, M. Education and Employment: a Critical Appraisal. Paris: International Institute of Educational Planning, 1978.

Carnoy, M. "The Economics of Education." AERA Encyclopedia of Research. In press, Spring, 1982.

Chambers, J. & Parrish, T. The Concept of Adequacy in School Finance. Institute for Research in Educational Finance and Governance, Stanford University, 1981 (mimeographed).

Cohen, L. & Filby, N. "The Class Size Issue: New Evidence." Phi Delta Kappan, March, 1979, pp. 492-95.

Domhoff, G.W. Who Rules America. New York: Prentice-Hall, 1967.

Domhoff, G.W. The Powers That Be. New York: Random House, 1978.

Elam, S.M. (ed.) A Decade of Gallup Polls of Attitudes Toward Education, 1969-1978. Bloomington, Ind.: Phi Delta Kappa, 1978.

Freeman, R. The Overeducated American. New York: Academic Press, 1976.

Glass, G.V. & Smith, M.L. "Meta-analysis of Research on Class Size and Achievement." Educational Evaluation and Policy Analysis, Vol. 1, 1979, pp. 2-16.

Harrison, B. "Education and Underemployment in the Urban Ghetto." American Economic Review, December, 1972, pp. 796-812.

Jamison, D., Suppes, P., & Wells, S. "The Effectiveness of Alternative Instructional Media: a Survey." Review of Educational Eesearch, Vol. 44, 1974, pp. 1-67.

Jencks, C. et. al. Inequality. New York: Basic Books, 1972.

Jencks, C. et. al. Who Gets Ahead?. New York: Basic Books, 1979.

Kolko, G. The Triumph of Conservatism. Glencoe, Ill.: The Free Press, 1963.

Levin, H. "A New Model of School Effectiveness." In Mood, A. (ed.). Do Teachers Make a Difference? Washington, D.C.: U.S. Office of Education, 1970.

Levin, H. "Educational Vouchers and Social Policy." In Haskins, R. & Gallagher, J. (eds.). Care and Education of Young Children in America. Norwood, N.J.: Ablex Publishing, 1980.

Reich, M. Racial Inequality: a Political Economic Analysis. Princeton, N.J.: Princeton University Press, 1981.

Ribich, T. Education and Poverty. Washington, D.C.: The Brookings Institution, 1967.

Sewell, W. & Hauser, R. Education, Occupation, and Earnings: Achievement in the Early Career. Madison, Wis.: Department of Sociology, University of Wisconsin, March, 1974.

Smith, A. The Wealth of Nations. New York: Modern Library, 1937.

Thurow, L. Poverty and Discrimination. Washington, D.C.: The Brookings Institution, 1969.

Thurow, L. & Lucas, R. "The American Distribution of Income: A Structural Problem." Hearings before the Joint Economic Committee. Washington, D.C.: United States Government Printing Office, 1972.

Williams, W.A. The Contours of American History. Cleveland, Ohio: World Publishing, 1961.

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EDUCATIONAL ADEQUACY: IS IT A MEANINGFUL CONCEPT?*

Annegret Harnischfeger

Educational Adequacy: What Is Sufficient for Whom?

Educational adequacy concerns the question: What is sufficient for whom? "What" relates to resources, services, achievement, and earnings; "sufficient" relates to goals or desired outcomes that are set in connection with societal demands and priorities; and "whom" relates to students who are categorized with respect to certain educationally relevant characteristics. A determination of educational adequacy has to address all of these parts. This task has not yet been explicitly undertaken. So far, concepts that have been developed in connection with determining and assessing educational adequacy have tended to focus most explicitly on the resource side--i.e., the input--on achievement and earnings--i.e., the output side of the educational system--or on a relation of both. Most of these have emerged from studies of educational equity or equality, which have rarely explicitly addressed services or processes, and no concept has evolved that relates all relevant aspects of the educational system in a definition of educational adequacy.

Key conceptual elements that have thus far been minor or missing aspects of adequacy-related discussions bear on goals, on subgroups of pupils and the relationships between goals and such groups. A need is a discrepancy between a goal or desired outcome and an actual outcome. If distinct groups of pupils have distinctive needs, then either goals or outcomes, or more likely both, must differ among them. A discussion of educational adequacy must fully and explicitly integrate these issues with traditional discussions of resources and outcomes.

Concepts related to educational adequacy, such as equity and equality, have a common ground in assuming that children differ in characteristics that relate to needs in their education. One such characteristic is age. States have regulated the age range for elementary and secondary school attendance; the typical school population ranges from age 5 to 17. This population is usually subdivided into groups with distinct characteristics that relate to children's learning. Organizationally, the age-grade structure is a basic result of this division. Within the age groups school populations differ with respect to the educative difficulties they present. These difficulties may arise from learning disabilities, inability to speak English, or deprived backgrounds. The difficulties are recognized because of discrepancies between actual and desired outcomes for these groups, i.e., their needs. Less often is the other end of the spectrum--the gifted and talented--represented in the determination of a system's special educational needs. Most of the focus in finance studies, as well as in federal educational policy, has concentrated on student characteristics that constitute disadvantages for learning, require increased services, and consequently involve the expenditure of more resources to reach certain desired educational outcomes.

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As a particularly salient example, the identification of gifted and talented students in a district or state could either add to or subtract from a system's educative difficulty. The actual result depends on the goals or desired outcomes. If the goal is "minimal competency education," then larger numbers of gifted and talented students would lower a system's educative difficulty or educational needs. If, however, the goal were to educate the potentially highly achieving to even higher levels of accomplishment, then identification of more gifted and talented students would increase educational needs, although not necessarily educative difficulty.

In general, which student characteristics are seen to be relevant in determining educational needs is a function of goals and desired outcomes. Another instructive example is the non-English-speaking group. They increase instructional load and consequently require increased resources if a system's goal states that every child should be able to understand and speak English. Also, low socioeconomic home backgrounds of students increase resource demand if desired outcomes are specified so as to require special educative efforts for that group.

It seems likely that there is agreement that any conception of educational adequacy must take notice of various characteristics of children, because these characteristics may have consequences for learning. However, which characteristics are relevant and are emphasized in an actual specification of adequate education will be strongly influenced by a system's goals and desired outcomes, explicit or not. Accordingly, such specifications of educational adequacy would differ somewhat with respect to the definition and assessment of educational needs and of educative difficulty. But more importantly, these specifications would be distinct with respect to their focus on levels of input or resources, types and levels of output or achievement, and the processes or serv[illegible] that are deemed adequate for defined pupil populations.

Concepts Related to Educational Adequacy

Typically, concepts developed in discussions of educational finance to delimit and grasp issues related to educational adequacy are technically and pragmatically based, in the sense that alternative educational programs or services are to be comparatively costed. These concepts tend to blind policy makers to the primary determinants of educational adequacy, i.e., its goals. Instead, they define and refine factors affecting the adjustment and comparison of costs. A brief review of the types of conceptualization and definitions of relevant terms will point up both accomplishments and problems.

Input Concepts

The basic approach of work relevant to educational adequacy as an input concept is adjusted equality of funding. This orientation incorporates the notion of equality and is often considered an equity concept. It is used to compare funding of education among states as well as among school districts. Considerable effort has been made to determine what constitutes equal funding. Adjustments are made, for example, for educative difficulty of pupils, energy needs related to climate, transportation needs in rural areas, cost-of-living differences, and labor market conditions, inasmuch as they are related to school district personnel costs. Thus total input is considered equitable if, for example, a state's adjusted funding per pupil corresponds to the national average. Some work also takes account of a state's or district's ability to finance education, often defined in terms of property wealth, and of a system's effort to provide funding that relates to local property tax rates. These latter concepts are part of some states' equalization formulas, whose function is to equalize districts' funding after adjustment for the abovementioned factors and consequently equalize input.

All of these efforts at equalizing educational funding in a reasoned fashion are carried out with the hope that equality of input will result in greater equality of outcome, since equal educational services can then be purchased. How resources are to be turned into services and specified outcomes is left an open question, and whether equalized funding means sufficient or adequate funding is not discussed. Equal funding or input is thus generally considered an equity and not an adequacy concept.

Output Concepts

Strictly considered, educational outcomes are only what students have learned, i.e., their acquisitions or achievements. And as they concern schools, outcomes would be restricted to school learning. Nevertheless, postschool earnings are often considered indicators of educational outcome also. The relation of earnings to schooling is weak, however, because the occupational structure and labor market conditions also strongly influence them; in general, the linkage of earnings to schooling becomes less meaningful soon after schooling is completed.

Achievement is used as an output concept that relates to educational adequacy in several distinct ways. One might define educational adequacy in terms of specified minimal competencies. This definition would, however, neglect the differential societal demands for highly qualified persons in different occupational areas. And considerable discussion has lately focused on the inadequate output of highly qualified students from secondary and post-secondary education. This discussion has been nurtured by outcome comparisons in the international arena. Thus it also relates to societal goals of international competitiveness.

The minimal competency view is directly linked to societal needs and goals. Efforts in this movement are devoted to forcing the schools to assure employability and sufficient self-reliance to meet the demands of life in our society. Minimal competency is now defined as an explicit goal by the majority of states. It can be considered as representing one facet of educational adequacy: the minimally required outcome.

As such, it is a partial but not sufficient determination of educational adequacy as an outcome or output concept. It needs to be widened and augmented by the total spectrum of desired outcomes that can only evolve from societal demands and goals.

Of course, achievements that are judged educationally inadequate may be caused by either low input--i.e., low funding in relation to high educative difficulty, a low tax base, or low tax effort--or by ineffective or inefficient services. Thus remedy could be sought with increased funding or by increasing the effectiveness of the use of existing resources.

Input-Output Concepts

The viewpoint taken when input and outcome are linked into a concept concerns the societal return of investment in education. Usually it is phrased as, "How much more for whom gives what return?" "How much more" ultimately stands, of course, for funding. "Return" has been defined from varied perspectives: lifetime earnings, employability, satisfaction of manpower demands, and productivity.

Studies using this type of concept inform the decision-making process about societal investment in education. One could, for example, compare estimates of what the returns might be if a specified amount of resources were invested in education of the disadvantaged as compared to educating gifted and talented children. Models using input-output concepts have not been used to inform about societal returns of investments into the component levels of education, i.e., preschool, elementary, secondary, and higher education. But, basically, they could be applied also to such questions.

One could specify as educationally adequate a situation wherein investment in education results in fulfilling manpower demands. This would be a technical definition of educational adequacy, because it neither questions the determinants of investment nor of demand. If investment would be considered within the total societal context and manpower supply attached not only to labor market demands but societal goals, then this type of concept could be considered a large step toward a definition of educational adequacy. Its shortcoming would still lie in its neglect of the educational processes that lead from funding to certain outcomes.

Process Concepts

In the literature that addresses concepts related to educational adequacy, one finds the term "educational services." This is actually one aspect of the educational process. Educational services are specified in terms of personnel, equipment, facilities, energy, transportation. In order for these to become relevant for children's education, they have to be used in certain settings that are constrained by school years, school days, class and course organization, groupings, materials, and teaching strategies. Thus process is a term that covers educational services in its use for pupils within time frames.

In a sense, educational adequacy has been specified for certain features of process most extensively. Seemingly, twelve years of elementary and secondary education are adequate. Seemingly, a 180-day school year, stretched over nine months with three months of summer vacation is adequate. But not quite. Recently, this time frame has been questioned for one subgroup, the handicapped. For them, a 180-day school year is considered by some an inadequate educational offering, because this subgroup of children needs more time to acquire certain skills than any other subgroup. Seemingly, primary classrooms are adequately organized as self-contained, i.e., one teacher teaches most subject matter areas within one classroom. Adequacy is very often used in discussions about educational materials: what for whom? Materials are judged adequate for specified age and ability groups.

It might seem from these examples that adequacy of process could be considered as synonymous with "norm." This would be mistaken. The two concepts are distinct. What is the norm might still be insufficient and inadequate. Practically, many norms of practice may be adequate. But whether they are is a question of conception and fact, not of definition. For example, the organization of the school year was presumably adequate in an agrarian society, because children's help was needed in the summer. Whether the adequacy of this norm still holds is questionable.

This means that adequacy of educational processes has also to be viewed within a total societal picture. This view requires that a reasoned definition of educational adequacy, in all its aspects, has to take account of the society as a whole, nationally and internationally. Societal conditions outside education bear upon and interact with any definition of what constitutes an adequate education for whom.

Goals

Input, outcome, and process are fundamentally determined by the goals that education is to achieve. Often, these goals are not explicated, and this fact may explain why the concept of educational adequacy has been neglected for so long, as its definition also implies explication of goals.

The actual educational scene presents manifold goals. Education, spanning preschool to post-secondary, presents a multitude of goals for particular individuals, and in the aggregate for the population and the society. In the context of this paper, the notion of adequacy relates directly to goals in the aggregate or societal sense. Education--as it relates to these goals--is fundamentally an instrumental activity. We wish to develop individuals in ways that go beyond their immediate educative experiences. We are desirous of creating changes in them that are pervasive and lasting, that contribute to their post-school life. And it is this post-school life, formed by schooling, that societal goals for education address.

As a society and as a nation, our most basic concerns about schooling outcomes focus on work, political participation, and child rearing. It is the first of these, in the nexus of occupation-job-work, that structures and achieves the production necessary to sustain individuals and, through them, the society and the nation. It is participation in the political process that allows workable resolutions of disputes and development of legitimated public policy. And it is the basic unit of living and reproduction, the family, that forms the basis for development of succeeding generations.

Among these three, however, work is primary, and the determinants that form individual work histories are the most important in life. An individual's work determines his/her contribution to the society at large; and work generates the basis for resources required in satisfying a person's needs and desires. The educational system plays an important role in preparing individuals for such work patterns. It differentiates individuals, both formally and informally, with respect to their educational experiences at all levels of the system. Historically, changes in these differentiations have partially paralleled the great increases in education attained by succeeding age groups. And these increases have also influenced the educational levels at which selective distinctions directly ease or bar access to certain initial occupational roles. Selectivity, in some way, is required by the division of labor that has formed the economic base for modern society and resulted in its increases in productivity. It is surely societally unproductive and nonsensical for a single individual to construct and build an automobile or to produce his personal daily newspaper, for example. And this division of labor has elaborated educational and training activities as preparatory to work roles and occupations. Thus, at some level and to some degree, differentiation of goals and consequently selection of students into specific goal-related educational processes is required.

Goals are desired capabilities for individuals. These can be summarized into skill patterns and related to manpower demands. To attain goals, we allocate resources to create educative experiences leading to them. For some individuals, successful experiences are more costly to create than for others. This occurs because greater resources must be expended--per unit of time or over longer periods of time--in order to achieve the goals. This is so because of pupils' differential educative difficulties.

Given resource limitations and a particular group of pupils, both goals and resources may be differentiated. Pupils are directed to educational processes with distinctive goals. Resources are differentially allocated across these distinct educational processes. With fixed amounts of resources, the standards of accomplishment achievable by students are then heavily determined by the specivic resource allocations made. Thus the resource allocation priorities reflect, either explicitly or implicitly, societal goals as they structure and prioritize outcomes of the educational system: occupational access, employment and work, and in the end economic productivity and the distribution of products and services.

Thus the educational system as a whole, from preschool to higher education, as it selects and differentiates individuals with respect to goals and allocates resources to them, forms sequences of experience that culminate in work histories--the occupation-job-work nexus referred to above. It is useful to survey this sequential process as individuals proceed through the system, in order to comprehend loci for concerns about adequate education.

Neighborhoods and communities, and the schools and school districts that serve them, differ of course in the resources available to them. They also differ, sometimes profoundly, in their aspirations and their priorities, even at elementary grade levels. Some elementary schools emphasize "basic skills" --to the exclusion of art, music, and science--while others devote considerable resources to "rounding out" the curriculum. Much of this educational differentiation relates directly or indirectly to expectations about the eventual life roles that pupils will assume and the skills that they need to acquire to fulfill them.

Thus districts and schools serving working class populations are often faced with home environments and other sources of educative difficulty that lead them to concentrate on essential skills underlying employability--reading, mathematics--because the total amount of learning possible, given the available time and resources, is limited. And these goal priorities are reinforced by parental expectations of immediate job entry following the mandatory schooling period. Elementary schools serving upper-middle-class communities, on the other hand, depend heavily on home learning and parental support for reading and basic mathematics. They can afford, therefore, to devote more of their resources (typically greater) to non-"basic" areas of the curriculum. And parents who are oriented toward academic high school programs, and later elite college or university entry criteria, support these goals and allocations.

Further differentiation exists within elementary schools as well. Even at the earliest levels, one finds ability grouping and "individualized" instruction. Here goals are differentiated in the guise of aptitude or educative difficulty. Pupils are assigned to "slow" and "fast" groups and proceed at different paces through the same materials or are provided with materials graded in difficulty. Thus the grouping differentiates the amount of material covered if not its content. In this way pupils are held to different "standards" of progress or performance and, implicitly, distinct goals.

At the middle level of the system, in secondary education, one finds goal and experience grouping in the form of tracking. Individuals are selected into and participate in one of three major tracks: vocational, general, and academic or college-preparatory. These tracks implement distinctive curricula with differentiated goals and resource allocations. Vocational tracks point their graduates to immediate job entry, academic ones to college or university entry, and general tracks ostensibly have the total range of outcomes.

Selection and stratification, which is a fate controlling part of the elementary and secondary school system, do not involve choice among schools--except for those with the sufficient resources for private schooling or geographic relocation. It involves an institutionally based selection and allocation process that, because of legal constraints of attendance and "professionalized" schools, has had little room for external input. In post-secondary school, however, the selection and stratification involve choices among institutions, and families have more control over the resources they contribute to the process. Colleges must attend to these choice possibilities. The cross-institutional selection process then becomes more important in an individual's access to educational programs that lead to the upper occupational and work strata than does the base decision to continue post-secondary schooling. At present, the base decision to enter higher education carries more weight for eventual occupational and work organization access at intermediate levels than the cross-institutional selection decision.

Viewed as a whole, the system allocates and educates individuals at five generic levels: high school dropouts, high school graduates, pre- or non-baccalaureate post-secondary education, college graduates, and post-graduates. Increasingly, only the highest level of education qualifies one for positions of leadership and responsibility. And the lowest category has "submerged" as that with high rates of unemployability.

Each of these levels consumes a portion of the resources that the society devotes to education, and each has its own sources of revenues--personal and governmental (local, state, and federal). And as all individuals eventually are selected into one of these groups, each level has its own total "per-pupil expenditure." Thus, as we define a conception of educational adequacy, we must address the costs and benefits of the whole allocation--in terms of the numbers of individuals in each category, the costs of each, and the contribution of each to economic productivity, the political process, and reproduction of the culture and the society.

Educational Adequacy: What Is It?

It seems that the exclusive focus on one aspect of education, be it input or funding, outcome or achievement and earnings, process or quality of schooling, curricular policies, etc., is insufficient for a definition of educational adequacy. It also becomes obvious that no definition of educational adequacy can avoid taking account of educational goals. Any attempt at defining educational adequacy has to place these parts into a structure that grasps the crucial facets of education. This definitional structure, by itself, however, is merely formal and hence insufficient for an actual, concrete specification of educational adequacy. It has to be filled with content, which derives from the here and now of the society, the nation, groups and individuals. Current societal wealth, societal demands, and societal goals influence educational goals and funding. Existing educational goals and knowledge about learning and the effectiveness of school organization, as well as school management and teaching strategies, influence the educational process and resource requirements. Thus educational adequacy needs to be defined and specified in two steps: First, we need to lay out its structure; then we must fill it with content. This way of proceeding has several advantages: The structural part may be used in any concrete situation, be it a state, a nation, a school, or a specific level of education, now or historically; the content part, i.e., the goals and demands, funding and the organization and content of learning, have to be determined and reflected upon within the concrete societal setting and a concrete time frame.

Structural Ground for Defining Educational Adequacy

We have to identify and join central aspects of educational adequacy: goals to outcomes for pupils with specific characteristics to funding and resources and the process of education, all of which have to be linked to the major public agents that determine and control them. These constitute the structural determinants underlying a definition of educational adequacy.

To understand education in ways that carry meaning for those who participate in it and are concerned about it and its consequences, none of these areas of distinctiveness can be neglected: School outcomes may differ by intent as well as by the efficacy of programs and activities. Schools are presented with considerable variations in the levels of preparation that their pupils bring to the schooling process, and these have profound consequences for outcomes. And schools really do differ in their effectiveness. Thus it is vital to describe, against a coherent conceptual frame, each of these differences in a cohesive fashion, as well as to attempt to sort out the reasons for differential outcomes against the structure of their origins.

Goals. As we have shown in the previous section(s), schools aspire to distinctive goals. For example, some public secondary schools design their entire curriculum around post-secondary career paths that primarily begin in selective colleges and universities, while other schools (e.g., "vocational" ones) may focus their whole program around immediate job entry to skilled and semi-skilled occupations. Goals also are distinct for the different levels of education, i.e., preschool, elementary, secondary, post-secondary. Aside from goals, standards are set, although not necessarily explicitly. They concern the degree to which goals are to be achieved. It seems important to consider standards separately from goals, because they reflect upon the degree of learning that we consider sufficient or adequate.

Goals and standards are determined by several controlling groups. One consists of the pupils who are to be educated and the educative difficulties they bring to the process of education. But there are several political entities that control goal and standard setting: community, state, and federal governments. However, goals on these levels are not usually defined explicitly. Instead, characteristics of process or funding are dealt with in the legislature. An exception, on the state level, is minimal competency legislation that is goal directed. The goal here concerns a defined level of literacy, employability, and basic skills necessary to lead one's personal life. Whether goals and standards are met always depends, then, on the eventual outcomes of the education.

Outcomes. Outcomes are mostly measured through tests. Whether it is a school readiness test, a minimal competency test, or a bar examination, all testing serves the purpose of assessing the match of performance to goals and standards. If outcome measures fall short of goals and standards, then, on an individual level, a student will not be allowed to pursue certain activities, e.g., advance to the next grade, enter higher education, practice law. Or, if we consider the failures of groups at a political level, increased funding and/or major changes in the educative process might be devised to remedy the situation.

Pupils with Specific Characteristics. Educational policy over the past fifteen years has mostly focused on pupil characteristics that we summarized above under educative difficulties: handicapped, bilingual, educationally and economically disadvantaged. These characteristics were identified because they are associated with requirements for increased funding and resources. Recently, stronger demands for increased funding have also been voiced for students who are considered as gifted and talented. What pupil characteristics might be considered relevant thus depends largely on the goals to be pursued.

Funding and Resources. Funding is provided from local, state, and, for most school districts, also from federal sources. Local funding varies, depending on wealth and tax effort. Local effort also draws on parental assistance and the local district may charge fees for certain school services. State funding for school districts varies with local wealth and tax effort, but also with program offerings and specific student needs. Federal funds have been mostly oriented towards pupils with specific educative difficulties and toward specific programs. In some way, funding is related to individual and societal needs, as determined by certain student characteristics, age or grade level, and also program. It is assumed that it is more costly to educate low-ability and non-English-speaking than regular students; it is assumed that secondary education has to require more funding and resources than elementary education; it is assumed that vocational education must be more costly than general education. Beyond funding for schools and districts, there are other resources that schools use. These resources reside outside the school but can be used for school learning; examples are museums, theaters, and aquariums. The fact that most of these out-of-school resources are located in large cities makes for large differences in opportunities between rural and small-town schools versus inner-city and metropolitan area schools, and might be taken into account when assessing the funding needs of an adequate education.

Process of Education. Since outcome or achievement is a consequence of what was learned how well, ultimately the focus has to be on the educative processes or the use of resources. The organization of school learning in what, how, when, and for whom are the focal areas of concern. Depending on age, ability, and subject matter, the organization of the teaching-learning process differs, but within each category settings may be quite similar. For example, self-contained elementary classrooms with about 27 students divided into three groups for reading are standard or typical. Also, the time frame for elementary and secondary schooling set by states and districts bears great commonality: kindergarten followed by twelve years of schooling five days a week for about six hours per day and 180 days per year. We find that diversity seriously enters the picture only when we address the content of learning. What students learn within the time and the organizational frame is as diverse as the goals and standards set for particular groups. What is considered desirable, sufficient, or adequate in one setting might not be so in a different one. Differences in resource allocation severely influence this latter: the what.

The Content of Educational Adequacy

A concrete specification of educational adequacy has to account for the here and now. What the "here and now" is will vary, depending on how we delimit them. For our purposes, "now" will be considered the Eighties. "Here" could be a specific school, a school district, a state, or the nation as a whole. It could also be a specific level of schooling: preschool, elementary, secondary, post-secondary. Concrete definitions of educational adequacy for these different entities will likely contain different goals. Educational adequacy definitions will also address specific student populations with distinct characteristics. And these pupil characteristics will entail varying goals and needs, and therefore resources and funding. In this context, different governmental entities have expressed distinctive interests in the adequacy of education at different levels and for different groups.

Since education is a state and local matter, we historically find no efforts on the federal level that relate to educational adequacy in a general sense. In other nations, where either the responsibility for education is placed or coordinated on a national level, often national policies are instituted that relate to adequacy. These might be stated as goals and process, in terms of percentages of an age cohort who are to accomplish certain levels and types of education that, in turn, are related to manpower demands and national growth planning. Or national policies are defined in terms of funding for specific levels of education and specific subgroups. This kind of comprehensive educational policy, which delimits "adequate education" for a total population, does not exist on any level in this country. We have to piece the overall picture together from policies that flow from diverse and usually uncoordinated governmental and interest groups.

Federal efforts to support education have been oriented toward students with certain characteristics as well as towards certain goals. Examples from major federal programs are: handicapped students; students from educationally disadvantaged backgrounds starting at preschool age; non-English-speaking students; vocational programs for secondary school students; economically disadvantaged students in higher education; post-graduate science and engineering education; and talented and gifted students.

These examples of federal support for education bear on educational adequacy considerations. Most of the programs and funding are oriented towards students from two subgroups, the educationally disadvantaged and the economically disadvantaged, who were considered to receive insufficient and unequal education.

On the outcome side, the federal government is supporting achievement, employability, earnings, and personal well-being of a subgroup of students with high educational difficulty, and beyond secondary schooling, it supports higher achievement and earnings for an economically disadvantaged subgroup of the population. It also supports advanced education for those entering high-priority occupations. Ultimately, in addition to specific equity concerns, the hope is that these outcomes will result in increased productivity for the nation.

The goal of enhanced national productivity, as it relates to federal support for education and specifically desired educational outcomes, has not, however, been well specified on the federal level. Instead, most federal education policies have concentrated on funding formulas--thus input--and, to some extent, on process factors in specifications about how funding has to be used (e.g., supplanting vs. supplementing use of Title I funds). These latter specifications are to ensure that the target groups receive increased resources. In total, direct influences on the process of education from the federal side are minor, as federal education laws and regulations neither address instructional strategies, school organization, and management, nor instructional materials and amount of schooling. All of these issues that bear heavily on efficient use of resources, are addressed, if at all, at the state and local levels, where educational responsibility resides. And since the federal government only contributes a quite small share of the total expenditures for elementary and secondary education, its overall influence has been rather limited, although some claim that the federal influence on schooling goes beyond the share its pays.

A comprehensive definition of what might constitute educational adequacy, on the federal level, would lack ground for realization. Constitutional anchoring of education to the state level has, thus far, delimited the practical role of the federal government, in realizing or implementing definitions of educational adequacy, to piecemeal support. This support, however, although small, is not negligible, especially if it is integrated with a comprehensive definition of educational adequacy. But such a comprehensive definition that specifies and relates goals to outcomes to funding and process and to students' educative difficulties or other student characteristics has no grounded place on the federal level, because it can't be implemented. For the federal government, it seems more reasonable to create policies that reflect national goals and demands but that can be integrated with comprehensive and more detailed definitions at the state level.

State-level definitions of educational adequacy will have several commonalities as well as some diversities. Goals will vary, depending on regional needs. That is, skill demands for rural areas are different from urban ones; and beyond manpower demands, skills might be valued differently. But goals are also a function of what a state wants to invest or can afford to invest in education. The federal government could influence all of these factors to align them to national goals and demands. So far, its influence has been concentrated on helping poor states to realize certain educational goals and on assisting students with high educative difficulties and economic disadvantages.

Goals are typically not explicated on the state level in terms of manpower needs or skill levels and standards. We can infer this from funding allocations, legislation, and state department mandates. The only outcomes that have recently been defined in many states are those of minimal competencies. If we compare what states consider minimal competencies, we are likely to find many commonalities. But this issue only defines the lower end of skill distributions. At the upper end of the skill distribution, states support and control extensive college and university systems. These systems and the resources allocated to them reflect policy priorities of the states as they are tied to state economies, industrial and occupational structures, and (implicit) manpower planning. Allocations of funds then reflect state priorities for education. But states, especially via mandates, also influence the educational process. Length of the school year is regulated; certain content areas such as health, safety, and physical education are mandated; and teacher certification is required in order to ensure some quality control over the process of elementary and secondary schooling; and states charter and support teacher preparatory institutions. Most of this type of controlling influence is concentrated on elementary and secondary schooling, as this constitutes the foundation of the educational system.

In some aspects of process we find remarkable similarities among states. An example is the length of the school year. Also, organizations of schools and classrooms are very similar, as well as basic curricular approaches, which some states regulate via textbook preselection. And this is so despite the fact that a considerable amount of control does not rest with the state but with the local school districts.

To a sizable extent, the community in a school district determines the course of education therein. Goals and expectations are formed on the local level; financial support via real estate taxes reflects in the tax rate the willingness to support education and in the property wealth the affordability of education. Outside of minimal competencies, it is the local district and school that control educational outcomes and standards via resource allocation and quality control of the educational process. It is the district, the school, or the college and university that control the content of offerings (e.g., courses, subject matter areas), the instructional strategies (e.g., teaching approach, groupings), and the teaching-learning organization (e.g., length of day and period, schedules). It is this level that bears concrete and direct responsibility for education. This is the level at which adequacy with respect to the educational process can be most readily addressed.

Adequacy of process is, of course, related to funding, but it is not identical with it. Process has to be organized so as to accomplish specified outcomes thoroughly, i.e., with high success, and efficiently, i.e., without wasting resources. If schools and districts were organized so as to optimize learning per resource unit for specified student groups, outcomes, and goals, then we would have achieved educational process adequacy. Note that efficiency can only be judged in relation to a system's goals. It also entails the organization of the educational process--classroom learning as well as school and district administration--in relation to the state of the art and technology, i.e., managerial and instructional knowledge. Of course, adequate processes will vary, depending on pupils' educative difficulties (i.e., disadvantage in home background, inability to speak English, a handicapping physical disability) and on the levels of education (i.e., preschool, elementary, secondary, post-secondary, and higher education). And specific educational units (e.g., schools, colleges) might only serve part of the student stratum.

Educational adequacy is determined by the interplay of goals, standards, funding, resources, and processes for students with defined characteristics and educational difficulties. The process by which we reach a concrete definition might be iterative, always starting with determining the goals first, then costing out appropriate processes that, under conditions of the present state of the art, can be used to reach the goals; and then determining whether the set goals are affordable. If they are not, a new attempt at redefining goals and standards has to be initiated.

Goals should be explicated hierarchically. A general statement of how persons should be able to function in the society in different roles can probably be found. Manpower demands related to productivity plans for types of jobs can be defined and estimated federally and regionally. On the next level, we would have to detail the skills necessary in each of the areas. I do not foresee that national agreement would occur on this level. Valuation of the importance of certain skills versus others and varying living conditions (e.g., rural vs. urban, climate differences) will be reflected in goal specifications on this level. These goal definitions also contain minimal competencies. Very likely, these goals could be defined by states.

The next step then is to devise the educational processes that are to ensure that students reach defined goals. In order to be adequate, these processes have to be, in relation to the state of the art, efficient and effective for learning. And these efficient and effective processes are to be applied to each educational unit--a classroom or course, a school, an elementary versus a secondary or unified district, preschool as well as post-secondary schools, college-preparatory as well as vocational tracks, and to the system as a whole. Moreover, the organization of the educational process, the instructional approach, and the content have also to be related to students with specific educationally relevant characteristics. What is an effective and efficient teaching approach for a gifted child might not be so for a low-ability student; or certain instructional strategies might be better suited to children of secondary-school-age than to elementary school students.

But the organization of education must not only be considered from effectiveness and efficiency standpoints. If we were to restrict our view of adequacy of process to those aspects and cost out an optimal system, we would unlikely be able to afford it, because small classes or, in the extreme, tutoring, are likely to be most effective for student learning. But such a high teacher/student ratio would be too costly. We therefore also have to relate any organization of process to costs, or more precisely, find process organizations that are most cost-effective. Since most educational expenditures are for personnel, school size, class size, and subgrouping within classes--in general, the teacher/pupil ratio in relation to student achievement--would be a priority assessment topic, especially as it relates to students with varying educative difficulties.

The need for cost-effectiveness considerations exists because resources and funding are always scarce. This fact adds restrictions to the educational process in several ways. Educational systems may restrict access to certain forms of education. An example in secondary school is achievement-related track selection. An example on the post-secondary level is the limitation of access to higher education on the basis of abilities and prior achievements. Concretely, resource scarcity creates severe competition for funding among programs or groups of students with specific goals and characteristics. We ask, What is the cost-effectiveness of allocating a specified amount of funding to low-ability versus high ability students? This question is then turned into one of cost-benefit or total educational yield for the society. Perhaps the costs of educating students of very low ability to a level of stable employability are so high that, in a resource-constrained situation, we might consider further restriction of our goals for employability and invest the money saved in the education of gifted and talented students. The total yield in terms of a society's productivity could be higher. Thus it is the resource scarcity that forces compromises with respect to the educational process and goals. But resources and funding are a consequence of what we can afford and what we want to afford. Since goals are the first and highest priority in defining educational adequacy, the educational process, if efficiently and effectively organized, should be allocated what we can afford. Goals must have some reasoned relation to funding in order to allow for a workable definition of educational adequacy.

Answers to Questions

In a summary, I shall now, on the basis of the above, answer specific questions posed by the National Institute of Education for this work.

In what alternative ways can adequacy be defined? Any definition of adequacy has to integrate goals, process, and funding with respect to relevant pupil characteristics such as their educative difficulties. Educational adeuacy is to be defined in view of the interrelation of these aspects, where goals take the lead but are set in relation to needs, plans, and affordability. Educational adequacy can then be defined hierarchically from general goals that apply to the nation as a whole to more specific ones that relate to states, districts, schools, levels of schools, and programs within schools. However, hierarchy means that the specific goals at one level have to be an integral part of those at the next higher level and vice versa. A consensus on goals is required before we may begin to develop educational processes that serve these goals thoroughly, efficiently, and cost-beneficially. Then we may proceed to overall costing of these processes. If the costs are unaffordable, we shall have to change goals and repeat the same procedure.

Can and/or should any level of funding or achievement test results be certified as adequate? Funding and achievement are important parts of educational adequacy, but funding per se or achievement per se can not be judged as adequate. They have to be related to goals and to educational processes. Funding is adequate if it suffices to provide efficient and effective educational processes to reach defined goals. Achievement is adequate if it fulfills set goals.

Should a program of educational adequacy recognize differences in pupil characteristics? The term program is unspecific. It is at times used to mean funding, but it is also used to mean educational processes. As stated above, adequacy should not be defined solely on either basis. But educational adequacy should take account of student characteristics insofar as they bear relevance for learning. We have used the term educative difficulty to summarize some relevant characteristics that have consequences for specific needs of educational processes and consequently for resources.

Are current measurement tools reliable for determining adequacy? The terms "measurement tools" and "reliable" make assumptions that are not given. They assume that we know what to measure, and they assume that educational adequacy can be determined by means of measurement only. Insofar as measurement refers to tested achievement, then the question ignores the key role of goals in determining what to test. And what to test clearly depends on the content of adequacy as well as the structure of the concept. If one regards the term measurement generically, one can broaden the context of the answer. For the most part, educational adequacy can not be measured. Goals are to be set, processes are to be assessed with respect to their efficiency, effectiveness, and cost-effectiveness. Funding needs can be costed and the affordability of specific educational processes can then be assessed. Some parts, such as costing out specific programs or adjusting funding for specific conditions, will come close to a measurement-type approach, but, on the whole, I would prefer the term assessment to measurement and strive for a valid assessment as a priority. And surely we are in the position to make valid assessments that lead to a definition of educational adequacy.

Is there any evidence that suggests that current funding levels are not adequate? We have never attempted to assess funding needs that flow from set goals and educational processes that have been scrutinized with respect to the state of the art, efficiency, effectiveness, and cost-effectiveness. Since funds have become more scarce, many districts have initiated some activity oriented toward more effective use of resources. Surely, the federal government, and especially NIE, could take the lead in that movement. Presently, there is no satisfactory answer to the above question.

Can current levels of expenditure be viewed as adequate under the alternative definitions? Let us assume that over a reasonable time period expenditure equals funding. Thus deficit spending will only occur for short time periods. Then funding and expenditure have to be aligned to process, goals, and affordability. If goals and processes require expenditure and funding that go beyond what we can afford, then we have not reached a definition of educational adequacy.

Are total funds available for elementary and secondary education adequate but problems persist in the equity in the distribution of resources? I have already noted that, at present, we do not know the answer to the first part of the question. The term "equity" is related to adequacy but is not identical. What is considered equitable depends more on values than on productivity goals and manpower demands. In that sense, equity enters into the goal-setting process. Resources are allocated differentially to students. More resources tend to go to low-ability students and to high-ability students than to typical ones. Is that equitable? I will not attempt to answer this question here.

What level(s) of government should assume responsibility for financing adequate education? What share should each provide? I have addressed in my earlier discussion what the role of the federal versus the state governments and the local district and community could be in defining educational adequacy. I have not related that discussion to funding. To dislock funding for education from local real estate tax and bind it to the state level would likely result in more equality of funding and could also help with reaching educational adequacy, but since funding and control tend to be rather closely intertwined, such a shift could mean decreased local control; the desirability of that is disputed. The role of the federal government could be to give special resources to poor educational units. It would thus function as an equalizer in providing adequate education. In order to do that, the federal government has to have a general definition of what constitutes educational adequacy.

What are the implications for a federal role in an approach to achieve educational adequacy? It is the responsibility of the federal government to develop and revise estimates for manpower demands as they relate to productivity. As such, the federal government has a definite role in defining educational adequacy. The federal government does play a priority "tuning" role when, for example, it supports manpower training for priority occupations or funds activities supported by the Comprehensive Employment and Train-Act (CETA). This role could be made more explicit and systematic across the spectrum of educational goals and outcomes--dropouts through post-graduates--if there were a comprehensive specification of educational adequacy. The federal government has also been charged to assist needy groups, poor districts, and states that cannot afford adequate education. Another important role that the federal government should take on more seriously is to assist in the search for and design of educational processes that meet the criteria that were set out above. The NIE could play a central role in that endeavor.

This task seems especially important, because it has strong bearing on resource needs. To lock these tasks to state or even local levels would likely result in duplication of efforts, because most of the issues that have to be addressed apply generally.

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ECONOMIC PERCEPTIONS OF EDUCATIONAL ADEQUACY

by

Douglas M. Windham

The concept of educational adequacy is a difficult one to apply in policy analysis, not because of a difficulty in identifying a definition, but precisely because so many potential definitions exist. When a single term can mean so many things, it ultimately means nothing. A basic requirement for informed debate is a consensus on the meaning of an "adequate" education and the "adequate" financing thereof. If consensus is not attainable, one needs at least a clear understanding of the different definitions being used by various parties to the debate so that real rather than only apparent (and primarily semantic) disagreements may be highlighted.

The purpose of the congressional mandate in Section 1203 of the Education Amendments of 1978, in regard to elementary and secondary education, and of the Education Finance Project's attempts to implement the mandate, is to provide substance to a debate where heretofore there has been none. In doing so certain hazards must be recognized. The more carefully defined and delimited the nature of educational adequacy, the greater the danger of losing the political support that has been or may be engendered by the very vagueness of the original legislative concept. Many people may support educational adequacy in an abstract way who will not be comfortable with a specific definition with clear implications for treatment of children in schools and for altered fiscal responsibilities for taxpayers and the various levels of governmental authority.

Still, no progress toward a realization of an adequacy standard of funding can take place without the consideration of specifics. The first step is to consider alternative definitions of adequacy and the various formulations for implementing them as a standard for educational financing. The purpose of this paper is to apply certain perspectives of economic analysis to the adequacy concept. While social, cultural, political, pedagogical, and methodological perspectives will encroach upon this analysis, the emphasis will always be on concepts and tools provided by economic science. Any final formulation of adequacy undoubtedly will be based upon a more multidisciplinary perspective than is presented here. This paper is an attempt to emphasize how these selected economic perspectives should contribute to that ultimate multidisciplinary synthesis. Any other approach would fail to exploit the comparative advantage of this writer and of the authors of the companion papers.

Economists, in their professional as opposed to political roles, normally are not required to engage in the exercise of goal definition. In theory, economic goals are derived from individual preferences, a social welfare function, or a process of political choice. The social welfare function represents the theoretical summation of a group's members' individual preferences across all alternative uses of available resources. Political choice processes represent any activities within the range from full participatory democracy to simple dictatorship. One of the main values of the social welfare function concept is to contrast the goals that would exist if one actually knew the individual preferences of the members of a political unit with the goals that result from the existing political structure.

Beginning in the contemporary era with the work of Little and Arrow in the 1950s, continuing through the work of Buchanan and Tullock in the 1960s and 1970s and culminating in the present expansion of work in social choice theory, economists have concentrated increasingly upon the issue of how goals are formed--not what they should be. The purpose of this paper requires a different approach, however. Ultimately, a criterion for adequacy -- in educational outcomes and finance -- will be posited; prior to that it is useful to review how most economists would approach the concept of adequacy.

In economics the adequacy concept would normally be applied to productivity relationships. These are stated most commonly in terms of the economic production function that exists at three levels of specificity. At the first and most general level, an outcome (X) -- which may be a single outcome or an index of multiple outcomes -- is posited to rely upon certain inputs $(a_1a_2a_3 . . . a_n)$.

The form is: $X = X (a_1, a_2, a_3, . . . a_n)$.

For education, X would represent either a specific outcome (attainment or a measure of cognition, attitudes, or behaviors) or an index of multiple outcomes. (See Lau, 1979; Hanashek, 1979; and Bridge et. al., 1979, for discussions of the limitations of educational production functions and especially of the problem of multiple outcomes.)

The above production relationship offers little useful information other than to identify potential determinant inputs. One does not know the relative importance of the inputs, the functional form (additive, multiplicative, etc.) in which they combine to form X, or whether selected inputs are substitutes for or complements to one another. The second form of production statement would appear as follows:

$$X = k + z_1 a_1 + z_2a_2 + z_3a_3 . . . z_na_n + e$$

where k is a constant, z is the beta weight for each input, and e is an error term.*

This formulation is still abstract but is more specific in that a functional form (additive in this case) is given. This equation is now subject to testing through application to a data set.

The most detailed educational production function would be one where the values of k, the various z's, and e have been determined. This final form would allow an educational planner to decide on educational input quantities based upon their relative cost effectiveness. This judgment is obtained by comparing the ratio of the effect on X per unit of input (the z value) to the price of the unit of input among all the alternative inputs.

One can use the production function as a means of establishing the maximum effects one can achieve from a given set of inputs or the minimum inputs necessary to achieve a given output. Both of these are definitions of technological efficiency. The latter efficiency concept is most relevant to the understanding of the common view of educational adequacy. What resources (inputs) are required in order to attain a level of educational outcome(s) that is definable as "adequate" by some established standard? Once one identifies the necessary resources (teacher, classroom technology, facilities, equipment, etc.), these can be priced and summed to establish a level of funding necessary for "adequate" education. The actual process (discussed in more detail below) is complex and not without methodological as well as political problems. But an adequacy standard (incorporating the efficiency concept) can be created and from it can be derived a standard for adequate financing.

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*This statement assumes the properties of independence, additivity of resource effects, and constant returns to resource changes. Each of these assumptions is subject to debate.

Three major steps exist in this process: the establishment of an adequacy goal; the identification of the production relationships; and the procurement of financing adequate to obtain the optimum mix of resource inputs. As noted above, goal definition is usually exogenous to economic analysis. In the subsequent sections a certain form of educational adequacy goal will be assumed. It is important to remember, however, that the proposed structure of analysis will work for any measurable outcome mix.

The greatest weakness of economic analysis of educational production relationships has been the excessive reliance upon macroeducational data (national, state, or school district) to examine processes that take place almost exclusively at the microeducational level: the school, classroom, or individual student (Brown and Saks, 1980). Because both regulation and funding originate at the macroeducational levels (and because data are more readily available for these levels), researchers have been misled into manipulation of numbers that are little more than aggregate artifices for the underlying phenomena they are supposed to represent. From such methodological errors have been generated the anti-intuitive findings on the impotence of education and the irrelevance of teachers. To have found any significant positive contribution for such variables at these levels of aggregation for largely misspecified equations or systems would have been suprising indeed (and subject to just as much skepticism as are the negative findings).

If educational adequacy of the type discussed here is to have policy relevance, it must be based upon an expanded system of microeducational research. The most recent examples of such work are Thomas (1977), Monk (1980), Kemmerer (1980), and Brown and Saks (1981). There is a need to merge the structure of the economic model of resource utilization with the educational psychologists' and classroom ecologists' skills of measurement. Only in this way will the production relationships for primary and secondary education be established to a degree of methodological confidence necessary for reasoned public policy.

The problem of determining the cost of an adequate education is complicated by the existence of other purposes for primary and secondary education than those embodied in the adequacy standard. If the adequacy standard is expanded to include day-care, health, nutrition, safety, and other practices as well as the cognitive, attitudinal, and behavioral aspects, the adequacy standard becomes both conceptually complex and increasingly difficult to measure. If the definition of adequacy is restricted to a few major outcomes stated in a specific and measurable way, there is still the problem of optimizing the input mix, given the constraints of other uses (and even other resources) necessary for non-adequacy standard goals.

Thus a production model standard of adequacy in financing primary and secondary education requires a specific and stable definition of "adequate" educational outcomes, an improved understanding of the relationship between school resources and educational outcomes, and a means of optimizing the resource mix within the constraints of availability and alternative demands for the resources. The following section attempts to move from the conceptual emphasis of this introduction to the more pragmatic issues of generation and use of an adequacy standard.

Toward an Educational Adequacy Standard

If there is to be a publicly guaranteed standard of educational adequacy, the standard must be defined in terms of inputs, processes, or outcomes of the educational system. Over the last twenty years in the United States the increasing trend has been for legislatures and the courts to attempt regulation of education through the specification of outcomes. In a recent report (May, 1981), William J. Tikunoff and his associates noted the following in regard to this trend:

> . . [T]he emphasis has been on mandated outcomes -- equal educational opportunity, racial balance, bilingual education, least restrictive environments -- rather than mandated programs to achieve these. In the eyes of the courts and the legislatures, it is the responsibility of schools and their educational personnel to achieve the desired ends. (p. 105)

The authors go on to point out that several possibly invalid assumptions underlie this regulatory strategy. The crucial one appears to be that:

> . . . schools could resolve social inequities and that the expertise existed among school personnel to do so. School personnel were expected to possess or absorb the skills of counselors, sociologists, cultural anthropologists, linguists, and cognitive psychologists. To date, little attention or fiscal support has been directed to recognizing the illogic of this attitude or to rectifying it. (p. 105)

Tikunoff and his colleagues are generous in asserting that the courts and legislatures "no doubt acted out of good conscience". A more cynical observer would have noted that it is easier to identify an inequity (especially if a powerful lobbying group is pointing it out to you) than it is to design remedial action or to anticipate potential negative externalities the remedial action itself may generate.

Schools and schooling are considered by most to be powerful vehicles for social change. What is noteworthy is the probability that schools were generally perceived as more powerful agents of change in society (and in the lives of individual children) before they became the recipient of greater and more varied social change responsibilities. Any individual or agency that is unduly encumbered with a wide range of responsibilities may end up doing few, or none, of them well. To many educators, parents, and taxpayers this appears to be what is happening within America's public primary and secondary education system.

This analysis may be faulted for ignoring the concomitant change that has occurred in society in recent decades. In fact, the increased complexity of schooling may be, primarily, only a mirror of the increasingly complex society in which it operates. The issue now is how can schools retain (or recapture) their traditional cognitive, attitudinal, and behavioral purposes without sacrificing the legitimate gains made in such areas as racial access and adaptation to the special learning needs of school sub-populations.

The educational adequacy debate may help to do this. A positive first step is the increased public recognition that students should not be used as the "shock troops" in every social battle. A reduction in the enforced homogeneity that much federal and state legislation calls for (and rarely achieves) would curtail much of the private school sentiment now evident in the voucher and tuition tax credit movements.

Second, there must be explicit consideration of the tradeoffs between and among the traditional school goals and the contemporary social goals for primary and secondary education. Where social goals are of such major importance that their pursuit may involve sacrifice of the traditional purposes of cognitive, attitudinal, and behavioral development, the fact should be recognized and clearly stated. To hold schools, and particularly teachers, culpable for failures to achieve desired levels of math (or reading or writing) skills is certainly inappropriate: The school is a production process from which additional outcomes have been demanded without any compensating change in the amount of resources or the technology of instruction.*

To return specifically to the concept of an adequacy standard, it must involve a recognition of the mutual exclusivity of educational goals at the margin when available resources are fixed. While outcome standards of adequacy are the most appropriate, the required understanding of educational productivity simply does not exist to allow for use of an outcome measure in isolation. Even if stated quantitatively in terms of test measures or the like, adequacy goals are of no use unless schools know how to maximize them, given their resources. Similarly, the problem with standardizing inputs is that it assumes certain productivity relationships that have not been shown to exist.

Much of the school finance research of the 1960s and 1970s concentrated upon proving that provision of equal financial resources is not an acceptable proxy for equal educational opportunity. There are three primary reasons why this is so. First, because of home background, earlier schooling, or physical or mental disadvantage, some students naturally require more resources than do other students in order to achieve the same level of learning. Second, situational cost differentials cause the same level of funding to purchase less schooling resources in some locations (especially in rural areas or large urban centers) than in others. Third, all schools do not operate with the same production technology nor do they attempt to produce the same mix of outcomes.

In terms of this last issue, there is a need for school finance research to recognize more implicitly that the demand for educational resources (and thus for financing) is derived from the form of classroom technology applied. In a single-teacher, class-lecture technology the resource demand may be almost exclusively for teacher time. In a programmed learning format, there will be a relatively higher demand for learning materials. Some classroom technologies allow for teacher specialization on pedagogical problems, with a teacher aide assisting in management and discipline. The point is that even with highly regulated public education systems there remains a wide divergence in classroom technology from school to school, subject field to subject field, grade level to grade level, and even from classroom to classroom.

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*School resources -- especially teachers -- do cost more than before. Changes in the prices of inputs do not change their physical productivity. There is no more reason for believing that today's more expensive teachers are more productive than there is that today's more expensive fuel is a more efficient source of heat.

Another problem with resource provision exists when schools have separate production technologies; for example, there is great difficulty in the comparison of schools that produce different combinations of outputs. A vocational technical high school may be expected to use a quite different mix of physical and human resources than would a college preparatory program. Similarly, a quite different mix of resources would be needed for a school with serious discipline problems than would be required in one without such difficulty. The first school must provide physical protection of students, teachers, administrators, and property, and this requires use of resources that would otherwise have served pedagogical purposes or alternative social outcomes.

There is middle ground between the imprecision of output measures and the inappropriateness of input standardization: emphasizing educational process as the standard. An adequate educational process would be defined and then financed. The process would have to be assured for a school regardless of its special location, nature, or problems. A process emphasis in educational adequacy can lead to quite large differences in the provision of resources. To provide the same learning experience for a child in an ethnically mixed, low family income, urban school as for one in a relatively homogeneous and affluent suburban school requires that the pedagogical resources be supplied in addition to the resources necessary to maintain discipline, compensate for locational cost differentials, etc. Thus a standardized measure of educational adequacy inherently leads to a varied incidence of public expenditure.

How can such a process-based system be designed and how should it relate to the input and outcome measures discussed earlier? The best philosophical model for such a system exists in the Rawlsian model of "social minimum" (Rawls, 1971).* Adapted within a neo-liberal framework, this model would imply an obligation on the part of government to supply those resources necessary to assure access to a minimum standard of educational process for all children. Such a system sets aside the debate over whether every inequality is, in fact, an inequity. It also ignores demands by such authors as William Rohwer (1972) that the public school teach only what most adults are capable of mastering. In the United States' federalized system, different social minimums could be established at the national, state, and local levels. There need be no maximums and no requirements for absolute equality.

The primary danger in a social-minimums system exists in establishment of the minimums at an excessively low level. However, the social minimums approach has the dual advantage of making any remaining inequality explicit at the margin

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*Rawls (p. 303) states that "all social primary goods . . . are to be distributed equally unless an unequal distribution of any or all of these goods is to the advantage of the least favored".

(and thus more subject to political demands for justification) and of increasing the potential political attractiveness of educational funding because of its direct link to the learning process. A cynic might well question the last assertion: Teacher groups, social elites, and public power groups may all find the educational system less attractive to support without the various non-pedagogical activities that rebound to their benefit.

However, an important aspect of a social minimum system is that, once the social minimums are guaranteed (but only then), the state or state and local authorities may add on whatever "luxuries" they like. This facet of the program gives rise to the central political and economic issue in the social minimum debate: Is the goal of increasing educational achievement for society's disadvantaged promoted best by a standard of educational provision that has equality as its prime criterion? The danger is that the debate will contrast unfavorably the probable achievements of the minimum provision standard of adequacy with the idealized but improbable achievements of equality standards.

The record of the last two decades of court and legislatively mandated educational equality reform indicates that equality remains as vague and uncertain a standard as ever. Because of the mixture of outcome measures and input standards of equality, schools and school systems remain vastly unequal without any appreciable gain in the provision of basic or minimal educational experiences to the disadvantaged. Where equality has made gains, it has been through a leveling downward that is both cause and a result of the exodus of many families from the public system.

One simple fact should be faced: The public primary and secondary educational system is not an appropriate or effective system for redistributing income or wealth in our society. The excesses of inequality in income and wealth should be controlled through the laws governing receipt and taxation of income. To those who doubt that this will be done, the appropriate reply is to ask why they feel society will allow redistribution through the public schooling function (even it such were achievable) that it opposes in the tax system.

The public primary and secondary education system is an effective institution for establishing improvements in the life chances of a society's disadvantaged members. Such improvements are more likely to lead to an eventual reduction in inequality than is any forced equalization of school resources. But is the proposal of social minimums any more realistic or politically acceptable than the equality proposals of the last two decades? Probably not. Both the courts and political structures of this country would require a period of time to adapt to a new standard for educational provision. But the adequacy minimums should be presented, debated, and refined, because there seems little doubt that the equalization models will continue to run up against the freedom of parental choice standard. As the recent appellate decision on the New York State-Levittown case notes:

> This litigation symptomizes the continuing struggle between dual forces: the desire of society's members to have educational opportunity for all children and the desire of individual families to provide the best education they can afford for their own children.

Neither the appellate decision case in New York nor the earlier decisions from California to Texas to New Jersey have resolved this struggle in any final

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way. The social minimums approach allows for one means of clarifying the federal responsibility for adequacy without placing the government in a role of forcibly curtailing parental choice.

THE IMPLEMENTATION OF ADEQUACY

I stated earlier that a social minimums approach to educational adequacy requires the definition of an achievement standard, the identification of production linkages, and supply of financing adequate to obtain the optimum mix of resources. Each of these represent discrete political steps that must be taken.

Definition of an achievement goal is an inherently arbitrary activity. Assume, for example, that the present mean level of national achievement in reading and math for each grade level is accepted as the definition of adequate achievement. There is no obvious logic in the choice of such a standard; one could as easily choose the third or ninth decile. Politically, the choice creates a set of very important implications for students, the educational system, and the various governmental levels.

Ceteris paribus, the higher the initial definition of adequacy, the larger the number of students whose education must be improved, the greater are the demands on the educational system, and the greater is the potential fiscal impact of the program. The ability and willingness of taxpayers to support the adequacy standard will determine the ultimate impact. Educational adequacy may be viewed as either a consumption good or an investment activity; in either case, one can be sure that the taxpayers' demand for it will be inversely related to its price. The higher the initial standard, the harder it will be to generate the necessary political support to implement and maintain the standard.

Given this political bias toward moderation, an adequacy standard for achievement may be generated. It must be a criterion-referenced standard, of course. The social minimums approach allows one means of avoiding the problem of dealing with multiple outcomes within the educational production function. Minimal standards of adequacy would be defined separately for each area of achievement. Thus, once the mathematics adequacy level is achieved, one can behave as if the marginal rate of substitution has been reduced to zero. Additional gains in mathematics would be treated as having no policy relevance in terms of the provision of adequacy.

With a set of adequacy minimums in place, the next policy issue is clarification of the input requirements for achievement of adequacy. At present this information does not exist, and traditional production function research offers little liklihood that it will be produced. With ethnographic methods used in a production function context at the classroom and school level, there is no certainty but some reason for optimism about what might be obtained. The government would have to create a "needs" model that would take student characteristics as given. These would be calculated in terms of both measurable aptitudes and attitudes. The model would then allow one to derive the minimal resources required (based upon the existing state of knowledge of the production relationships) to provide an educational experience that would allow the student to attain the achievement standard.

It takes little sophistication to recognize the implementation problems such an approach implies. Among the obvious are:

1. design of acceptable aptitude and attitude tests;
2. avoidance of "moral hazard" issues in that poor performance on the above implies greater resource availability for the school;
3. the implausibility of a standard based upon the individual child;
4. the existence of fixed resources in the school and classroom;
5. the targeting of funds to the needy child; and
6. the adjustment of the system to earlier shortfalls.

The first two issues are subject to treatment in a fairly straightforward technical manner, but the latter four will require significant policy adjustments. To implement the adequacy standard will require the generation of aggregate measures of student characteristics certainly to the school level and probably to the school district level. Given the earlier criticism of the aggregate artifices that afflict the present production analysis of schools, these new measures should be designed to elicit the most relevant indicators of student characteristics. Mean measures should be abandoned in favor of percentages of a cohort's population that would have certain characteristics of need as measured by the test instruments. A mean score of 80 percent on a test imparts less policy-relevant information than does knowledge that 22 percent of the students fell below a score of 60.

The set of necessary resources for adequacy would have to be adjusted to take into account the existence of fixed resources within a school district. For example, if available teacher quality or physical resources are less than the adequate standard anticipates, compensatory increases in other resources must be allowed. One of the major limitations to all attempts to restructure educational production is the extraordinarily small percentage of variable resources within the school budget. With given physical facilities and long-term teacher contracts or obligations because of tenure or union agreements, the primary if not the only means for altering educational inputs is through increased allocation rather than through reallocation. The implication is that the adequacy standard will involve a much larger increase in cost than would be the case if all resource inputs were variable in the short run.

An additional problem in implementing the social minimums adequacy formula will be the difficulty of targeting funds to the needy students. If funds are given to the district or school on the basis of the need for additional resources for presently "inadequate" students, what assurance is there that the funds will be used for those students? Even if the adequacy funds were treated as a special form of categorical aid -- as would be most appropriate -- monitoring resource use (or the acceptance of possible misuse) would represent an additional implementation cost.

Finally, in the real world of schools, one would face the problem of the system adjusting to earlier failures and inadequacies. Some children will still evidence a tendency to fall further and further behind the longer they are in school. In such cases, where compensatory resources have been provided consistently but to little effect, a policy decision must be made as to the limit of societal responsibility under the adequacy formula. If an eleventh-grade student is still reading at the traditional fourth-grade level, the amount of compensatory educational resources required are certain to be extensive. Resource availability will probably not be adequate to meet this need. In such extreme cases the system must either accept the existence of some rate of residual inadequacy or create a special program to deal with such students.

Alternative formulations of an adequacy standard of the social minimums type exist, of course. One could define adequacy of achievement in terms of a certain percentage of a student group who must achieve the adequacy goal. Or one could concentrate funds -- again within a categorical approach -- on the lowest 10 or 20 percent of the group. The first alternative poses the danger of the least advantaged group of students receiving less attention as more resources are concentrated upon the students closest to the margin of adequacy, and the second alternative would create an extremely sharp division in terms of eligibility for aid, whereas the need for aid would not be represented by such a precipitous break.

Any program of educational adequacy must take into account the need for compensatory preschool experiences. The earlier intervention occurs the less will be the future demand for resources to provide compensatory education. It is not sufficient by itself to bring children to the first grade with possession of a preschool level of educational adequacy, but it is probably the most important single step in the adequacy process.

If the social minimums form of educational adequacy were to be implemented, it would have to be on a year-by-year basis. Beginning with a given preschool cohort, the adequacy program could be implemented one school year at a time. Because of the greater diversity in the senior high school program, there might be a decision not to use the adequacy formula for resource requirements after grade 8 or 9.

In the succeeding section I address several of the central issues of policy and practice in regard to the adequacy standard. My primary purpose is to examine the possibility of transferring the adequacy standard described above from the theoretically possible to the politically practical.

ADEQUACY ISSUES

1. The Adequacy of Current Education Expenditure Levels.

It should be obvious from the above discussion that adequacy of financing can be determined only subsequent to a definition of adequacy of educational process, which itself assumes a prior definition of outcome standards of adequacy and sufficient information on the educational production function. All of this is required before the proper or appropriate educational process may be defined. Any discussion of educational finance without these prior steps is fruitless. School finance professionals have failed to appreciate the most basic of methodological points in this policy debate: Finance issues are inherently residual issues to those of goals and process.

Just as court decisions on financial inequity fail to generate acceptable standards for reform, so too will debates on financial adequacy. An educational adequacy research agenda will inform policy in two primary ways. First, it should inform politicians and administrators of the impossibility of value-free standards of adequacy. Second, it should generalize an understanding within the school finance community that public policy in this area must be directional and long term.

The limited degree of flexibility within the present American school finance system is such that none of the goals of adequacy is readily obtainable. Public policy makers should try to push the educational system in the direction of selected adequacy goals, but should also act in the knowledge that these goals are distant, arbitrary, vague, and subject to change. The adequacy standards, if introduced, would initiate evolution, not revolution, in school finance. The issue of financial adequacy, as a derived product of this process, must also be dealt with in a conditional context and an extended time frame.

2. Adequacy Standards and Equity in the Distribution of Educational Resources.

Obviously, the issue of equity (whose solution requires a value judgment) must be separated from the issue of equality (involving a measurement problem) in resource availability. The advantage of the adequacy standard that is discussed here is that equity in terms of availability of resources is given a definition in terms of the resources available for a minimally acceptable output. This standard is no less arbitrary than any other but has the advantage of susceptibility to adjustment to changes in political and social judgments of what the output standard should be, increases in knowledge concerning the nature of the production process in education, and changes in the society's wealth and thereby in the available resource base.

This adequacy standard is not in the tradition of those models wherein equity and efficiency in education are set in contradiction to one another. Rather, efficiency is defined in terms of the equitable provision of the resources required for students to obtain the specified level of educational outcome. There would be (and should be) debates on the outcome standard and on the debate in such a way that arbitrariness is made much more explicit. To separate the positivist issues in educational policy (what can be done) from the normative (what should be done) would greatly facilitate the resolution of many of the political problems. Certainly, existing legislation on the adequacy financing issue itself could have benefited from a clearer perception of the distinctiveness of these issues.

3. Problems of Measuring and Evaluating Adequacy

The greatest single barrier to implementation of any educational adequacy standard is the insufficiency of our learning theories, of our specification of the educational production function and its components, and of our level of methodological sophistication. Output measurement is the area where the most work has been done. Two activities remain that are prerequisites for adequacy analysis. First, measurement of noncognitive goals of education requires more attention than it has received (especially from economists). Second, the difficulty of dealing with the issue of varying marginal rates of substitution among multiple outputs must be resolved.

The measurement of inputs remains crude. At high levels of aggregation the statistical artifices commonly employed tend to reflect resource availability rather than use and often misspecify the nature of the resource itself. At classroom levels of analysis other methodological and research issues arise, How does one value the flow of teacher resources to students in different instructional settings (lecture, small group, individual discussion)? How does one deal with the issue of the tradeoff between greater methodological precision at the microeducational level versus the increased data costs and reduced generalizability?

A final measurement issue in an adequacy system of educational finance will be that of evaluation standards. The allocation of funds to schools or school systems on the basis of an adequacy standard should presuppose the existence of some system of assuring that the resources are used for those students the funding formula specifies and in the manner it requires. For example, if federal allocations are distributed through state government to local school districts on the adequacy assumption that economically disadvantaged students require greater resources to attain the adequacy output standard, then there should be a way of ensuring that the resources are not reallocated away from such students at the local level. Similarly, the adequacy standard may provide resources on the basis that disadvantaged learners are operating within an aptitudinally integrated classroom environment. If the classrooms are "tracked" according to aptitude, the resources cannot have the assumed impact.

An adequacy standard requires an understanding by all involved parties of the basic assumptions of the model, and it requires monitoring of implementation. Without proper evaluation standards, it is impossible to envision how one could justify the costs of establishing an adequacy standard for finance.

4. Recognizing Pupil Differences in An Adequacy Program

The adequacy standard suggested here inherently and explicitly deals with the issue of variable pupil characteristics. The adequacy aid formula is designed to provide compensatory resources necessary to bring students with disadvantageous learning characteristics up to the minimal standard of adequate educational outcome. The basic adequacy standard should not be expected to deal with the extreme disadvantages for which categorical aid programs (for physically and mentally handicapped children, for example) are more suitably designed. The adequacy formula would deal with the definition of funding for the vast majority of students, however.

The crucial research issue is to define what relevant characteristics should be included in the adequacy formula. Crude proxies such as race or ethnicity should be avoided in favor of the more specific measures of economic or cultural deprivation. Information costs will continue to restrict the generation of data on the complex and subtle factors of home and school environments. But greater precision will be promoted if the data used are those closest to the present state of learning determinancy. It is not being black or Hispanic that restricts learning (educators do not accept the socially extreme propositions of genetic inferiority or participate in conspiratorial discrimination, I would hope), but there is a correlation between being black or Hispanic and growing up in a deprived environment. Measures of that environment, approximated in the minimally aggregated way, should be used in determining the adequacy of school resources.

5. Problems of Responsibility, Control, and Resource Availability Among Different Levels of Government.

These problems are dealt with together because it would be illogical to discuss state/local variations without first establishing a model of the distribution for financial responsibility among the three government levels. Unfortunately, there is nothing inherent in the social minimums adequacy model to suggest that any mode of distribution is superior to another. While it is clear that data on pupil and school/classroom variables should be collected and analyzed within the local environment, the issue of goal definition is subject to a more arbitrary resolution. Some may feel that local government officials should have full freedom to establish the outcome standard of adequacy and to use the resources they receive from federal and state sources in whatever manner the local adequacy formula dictates. Others would argue for a federal standard to be implemented at the local level with little if any discretionary range. Still others might propose that the federal government responsibility should be one of equalizing state capacities to finance adequacy but leave to the individual states the definition of the goals and adequacy aid formula.

A useful compromise would be to separate the roles of fiscal capacity equalization and adequacy. Fiscal equalization is a separate issue involving a whole complex of issues, few of which are unique to the education sector. A sound public finance standard, however, would be to require the federal government to take responsibility for whatever adequacy standards it does impose. One could take present state funding levels as a base, using the mean or modal level of fiscal capacity, or any other measure, to establish the financial obligation base for the states with which the cost of implementing the federal standard would be compared. Such a program would allow for states to increase but not to reduce the adequacy standard. States would also be free to allow local areas to do the same: They may raise the adequacy standard but not lower it. At each level the government would take responsibility for funding to compensate for the impact its regulations have on the lower level of government's cost of operation under the new adequacy standard.

Such a system would be cumbersome, however, specifically because of the issues of how to adjust from the present taxing/financing system. If a wider reform were possible, it would be desirable to promote a layering of financial responsibility. In this model, the federal government would establish a basic adequacy standard and assume full responsibility for financing its implementation. Student data, still collected locally, would be aggregated at the state level as a basis for determining the amount of funding the state would receive. The state would be required to pass these amounts on to local governmental units of education according to the adequacy financing formula.* Any state that raised the adequacy level above that established in the federal regulations would be responsible for compensating local areas for the impact of these changes. Finally, local education units could again raise standards of adequacy if they were prepared to fund the further costs.

Obviously, such a situation allows wealthier states or local areas to provide a higher standard of education. But that is an issue of the level of federal/state definitions of adequacy. The higher the federal adequacy standard, the less (and the less educationally relevant) will be the variations in state funding. Similarly, the higher the state standard, the less (and the less educationally relevant) will be the variations in local funding. An additional advantage of this system of layered responsibility will be the reduced dependence on the capricious, uncertain, and abuse-ridden property tax system presently in use. Also, the cause of inequalities will be made more explicit because differential responsibilities will be more clearly defined.

Finally, this system is even adaptable to use where funding of public parental-choice schools or private schools might be desired. Any adequacy funds received by a school from a governmental unit would bind the school to adhere to the adequacy process and goals established by the level of government. Consideration of the issue of private educational alternatives is not necessary for implementation of educational adequacy, but the system is adaptable to this consideration. It should be noted, however, that the system proposed here would reduce some of the present concerns parents have about the limits placed on a local or individual choice.

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*To avoid misallocations at local levels, rules could require local units to use pupil characteristics as the basis of allocations to and within schools. The monitoring cost for this would have to be compared with the anticipated gains before such rules could be justified.

Many other alternative structures for the division of control and responsibility exist. The policy analysis advantage of the adequacy standard is that it forces the debate to concentrate immediately on the central issue of inputs, process, and product in terms of the technical analysis and on control, incentives, responsibility, and monitoring/evaluation in terms of the administrative analysis. While the result of this debate will still be arbitrary, the reasons for the result will be more certain and more understandable.

6. Prospects for Early Funding of An Adequate Education Standard

This issue is of less importance than whether legislatures will adopt any adequacy standard and require administrative adaptation to the requirements of such a standard. It is doubtful if either type of change will occur in the next ten years. But the problem is more one of political sensitivity than of fiscal capacity.

The current issues dominating the debate on public schooling are school discipline, teacher unionism, property tax inequities, equalization of district resources, and subsidization of private schools. While each of these issues would be dealt with more efficiently under an adequacy system, there is no sign that the issue of adequacy has enough currency, and certainly not enough acceptance under a given definition, for political action to be forthcoming. Adequacy, like equality, is a political issue whose resolution would threaten the advantaged districts where political power is greatest. If resources for education were readily available, an adequacy program that involved a "leveling-up" process might be designed so as to be politically acceptable to a wide audience. The current environment, however, is one of fiscal constraint. Most parties to educational reform are likely to view the process, quite correctly, as a zero-sum game. Since the politically advantaged have the most to lose, there is little reason for optimism concerning as revolutionary a change as an adequacy standard of the type discussed here. In addition, primary and secondary education are entering a period when an increasing proportion of voters will be non-users of the system in any direct manner. The increasing relative as well as absolute numbers of elderly voters and young but childless voters makes the prospects for any future reform of policy unlikely unless it can be achieved at great savings. While adequacy systems might provide great efficiencies in the long run, the transition cost for a high fixed-cost, low-flexibility system such as public K-12 education in the United States is likely to be too high for general public support.

7. Implication for a Federal Role.

As discussed earlier, changing the federal role in the funding of adequate education involves a separate decision from the implementation of an adequacy standard that could be adopted at any level of governmental control. However, the federal government's impact on adequacy will probably be determined by its willingness to provide funds for K-12 education tied to the adequacy standard. The greater the degree of control over adequacy that is desired, the larger the funding share required from the federal government.

There is one unique function for the federal government in the adequacy system: that of design and specification of the adequacy formula itself. This is a research task, and it would involve significant external effects. Its costs would probably be too great for a single state. Since the social minimums form of adequacy standard requires the best available information on the resource determinants of school outcomes for a variety of student populations, federal research funding should be concentrated on this enterprise.

It would be necessary to create a network of classroom or school-level studies of inputs and processes that determine the desired outcomes. Realism requires that one not expect a finely detailed model to result, but it would be one more refined than we now have. Further, as research continues and as evaluation of the effects of adequacy programs is carried forward, the model may be further revised.

Because adequacy standards face such significant political barriers, the most important step at the present time is to initiate microeducational production research. There are a wide range of methodological as well as measurement problems to be overcome. Full discussion of the impact of an adequacy policy in educational finance must await the results of this research.

The final federal role will involve informational benefits for society. If it is accepted that adequacy standards deserve attention, the federal government can involve itself in the generation of incentives to promote wider political as well as public debate on this concept. The federal government could help states organize conferences as well as research on the adequacy system. The adequacy issue has very little meaning to most educational professionals, and few lay persons have heard of it.

SUMMARY AND CONCLUSION

As noted initially, adequacy suffers from a plethora of definitions. Within the philosophical concept of social minimums, I have developed in this paper a concept of adequacy linked to the economic model of the education production function. For any given output or set of outputs desired from the schools, an acceptable minimal level of achievement must be defined. Then, for varying qualities of initial student achievement and aptitude, the adequacy model would need to define the most efficient input mix that would allow attainment of the output achievement level.

Present research and understanding of the determinants of school production would not permit specification of an adequacy standard in any but the crudest manner. However, the initial rationality of the adequacy model would be no less than that which exists for the present system of financing K-12 education in the U.S. The long-term benefits from an adequacy standard would be substantially greater -- especially for the economically disadvantaged school population. An adequacy standard makes more explicit the societal obligations to school learners and provides a more objective standard for accountability than now exists.

Philosophically, there are a multitude of adequacy options. In this paper I have attempted to clarify the advantages of the social minimums approach. Technically, there are serious limitations to refinement of the adequacy/ production function approach. A substantial research investment would be required before implementation if this standard is to be used effectively. However, the greatest barrier to acceptance of the adequacy approach is political.

Political conservatism in regard to education would limit any reform to the present system and would be especially hostile to an approach that would change the basic assumptions and responsibilities of the system. Such conservatism is very understandable. Education is one of the most central of all social institutions. It affects, directly or indirectly, the lives of all citizens. Within education, parents, teachers, administrators, and taxpayers each represent significant constituencies that must be satisfied.

No single politician or political group is perceived as responsible for the present educational system. Anyone advocating a new system, however, would be held accountable for its failures. The politician(s) would have to share the credit for success with each of the constituencies mentioned above, but would be "free" to take full responsibility for the failures. Under such a cost/benefit calculus it is not surprising that dramatic educational reform has little political support except in crisis periods.

The issues to be resolved, e.g., definition of outputs, specification of the production function model, definition of intergovernmental responsibilities, modification of state constitutional education guarantees, etc., are all so subjective in nature and controversial in content that it is impossible to imagine any substantial political support for an educational adequacy standard in the near future. The debate over adequacy, however, will produce some significant benefits. The importance of the debate over adequacy lies in the clarification of issues. If nothing else results, more people should come to the understanding that the present educational system is not the only alternative that exists, that it is just as subjective and dependent upon capricious specification as the weakest adequacy standard would be, and that the effects of the system upon the disadvantaged is the result of a choice made by society.

The issue in the educational adequacy debate is similar to the adequacy standard itself in one way: An expectation that one will fail to achieve all that is possible should not deter efforts to move to an improved position. Continued research and discussion of educational adequacy will clarify many of the contemporary questions on education, even if it does not provide all the solutions.

NOTES

Bridge, R.G., C.M. Judd, and P.R. Moock. The Determinants of Educational Outcomes. Cambridge, Mass.: Ballinger Publishing Company, 1979.

Brown, B.W. and D.H. Saks. "Production Technologies and Resource Allocations Within Classrooms and Schools." In R. Dreeben and J.A. Thomas (eds.), The Analysis of Educational Productivity. Cambridge, Mass.: Ballinger Publishing Co., 1980.

____________. "The Microeconomics of Schooling." In D.C. Berliner (ed.), Review of Research in Education. Washington, D.C.: American Educational Research Association, 1981.

Buchanan, J.M. and G. Tullock. The Calculus of Consent. Ann Arbor, Michigan: University of Michigan Press, 1962.

Hanushek, E. "Conceptual and Empirical Issues in the Estimation of Educational Production Functions." Journal of Human Resources (Vol. 14, No. 3), 1979. pp. 351-58.

Kemmerer, F. "Towards Specification of a Student Time Supply Function." Ph.D. dissertation, University of Chicago, 1980.

Lau, L.J. "Educational Production Functions." In D.M. Windham (ed.), Economic Dimensions of Education. Washington, D.C.: National Academy of Education, 1979. pp. 33-69.

Little, I.M.D. A Critique of Welfare Economics. London: Oxford University Press, 1950.

Monk, D.H. "An Economic Analysis of Resource Allocation Within Classrooms." Ph.D. dissertation, University of Chicago, 1980.

Rawls, J. A Theory of Justice. Cambridge, Mass.: Belknap Press, 1971.

Rohwer, W.D. "Decisive Research: A Means for Answering Fundamental Questions About Instruction." Educational Researcher (Vol. 1), 1972. pp. 5-12.

Thomas, J.A. Resource Allocation in Classrooms. Chicago: Department of Education, 1977.

Tikunoff, W.J., S. Bossert, K. Devaney, and C. Fisher. "Toward a Research and Development Agenda for Successful Schooling Practices." Journal of Education for Teaching (Vol. 7, No. 2), 1981. pp. 97-126.

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EDUCATIONAL ADEQUACY: A PHILOSOPHICAL APPROACH

Maxine Greene

What are the criteria of educational adequacy? In the most general sense, they can only be derived from what is considered most significant and valuable in the culture at a given moment of time. At once, since this is a pluralist society characterized by multiple special interests, the criteria must be so framed as to take into account the adjustments and compromises that are required: notions of what various people are willing to do without; what they will make partial sacrifices for; how they mediate contesting value claims. Much depends on the location and point of view of those asked to clarify what they conceive adequacy to mean. There are those who take an explicitly policy-oriented point of view of the system as a whole. They are likely to think in long-range terms of structural equilibrium, of aggregate goods, of general tendencies where costs and benefits are concerned. There are those who take a local perspective: school board members, for example, who adjust their views of adequacy to the availability of resources and what they understand to be the minimal expectations of the district or community. There are the parents themselves, speaking out of group and class perspectives, conceiving adequacy in particularistic terms. Clearly, "adequacy" has many meanings; it can be determined in multiple ways.

If a consensus exists at this time, it involves a general acknowledgment that a post-industrial, technically advanced, economically troubled society requires a relatively high level of literacy among most of its adult population. The literacy called for is differentially understood in terms of specific skills and proficiencies. An adequate school, for most members of the public, is a school efficient enough to countervail against declining test scores, firm enough to ensure that its students read at least at grade level, confident enough to maintain discipline, competent enough to prepare a diversity of young people to meet "market demand." Below the surface of such articulated concern, very often, there is a desire to restore adult authority, to reinstitute moral guidelines, to stem the tides of relativism and what is thought of as the "new freedom" as it shows itself in excessive concentration on children's rights, sexual license, and addiction to alcohol and drugs.

For some groups, in fact, an adequate school is one that succeeds in training students to be law-abiding, no matter what the educational cost. For others, especially for recent immigrants, there is an interest in the kind of basic education that will quickly make their young effective and respected members of the majority. For many minorities, there is a demand for rigor, structure, and dependably equal opportunity. And, as always, there are clusters of people who believe that an adequate education is one that nurtures personal development and fulfillment; and there are other clusters who value knowledge and understanding above all else, who want to see their children liberally educated for professional or leadership roles in the world.

In the background of the great diversity of views and demands, two traditional conceptions of adequacy still exist. One stems from the thought of Thomas Jefferson; the other, from the work of Horace Mann. For Jefferson, it was the duty of the state to educate its citizens for their own and the republic's well-being. The "most effectual means," he wrote, of preventing the perversion of the American form of government into tyranny is "to illuminate, as far as practicable, the minds of the people at large..." (Honeywell, 1939). For Mann, tax-supported public education would not only guarantee loyalty to the political community. It would serve the aims of industry, augment wealth, and increase productivity. Moreover, education would be "the great equalizer of the conditions of men--the balance wheel of the social machinery." (Cremin, 1957). It is worthy of note that, in both cases, the school is instrumental to the attainment of something beyond. Seldom, in the United States, has education been justified for its own sake or conceived (as British and European thinkers have been wont to conceive it) as an initiation "into a world of understandings, imaginings, moral and religious beliefs, relationships, practices--states of mind..." (Oakeshott, 1975). We have not focused upon education into the "forms of life" associated with the fields of knowledge, or as initiation into the great conversation that has gone on over time. One of the decisions to be made with respect to the criteria of adequacy has to do with the question of whether such a conception can be reconciled with conceptions of democratic education--for service, for reform, for social mobility, for citizenship, for economic success.

The public or the civic view of education remains with us and will remain, albeit in slightly modified form; and it cannot but interact with and affect more specific views of adequacy. R. Freeman Butts writes, "A public school serves a public purpose rather than a private one" (Butts, 1980). He goes on to assert that "the prime purpose of the public school is to serve the general welfare of a democratic society, by assuring that the knowledge and understanding necessary to exercise the responsibilities of citizenship are not only made available but actively inculcated." It is also believed, however, that the knowledge and understanding required for citizenship are of the sort that ought to sustain rational discussion; incorporate a regard for such procedural principles as freedom, justice, and respect for persons; and reject dogmatism and absolute authority in any field.

Mann's vision of education for integration within the expanding industrial system and, at once, for the establishment of an orderly community was elaborated in certain of its dimensions by John Dewey (Dewey, 1916), in other dimensions by those who found their norms in scientific management practices and who developed the "cult of efficiency" (Callahan, 1963) that affects so many ideas of adequacy today. A conception of adequacy was also linked to notions of selective adaptation to the meritocratic system or to successful entry into the world of occupations or of work (Duncan et al., 1971). Recent concern for measurable competencies, for discrete skills and observable performance, has reinforced, in some quarters, the ostensible connection between educational adequacy and differential "fit" to the structures of the post-industrial society. The "back to basics" movement has itself been linked to personal and group productivity, much as the talent searches of the late Fifties were linked to improved scientific and technical attainment. As for adequacy identified with an equalization of the "conditions of men," recent efforts to compensate for deprivation through special programs for the handicapped and the poor have led to the recognition that, although the demands of equity have increasingly been met and educational opportunities expanded, the schools themselves cannot bring about full social or economic equality, and that equality of results cannot be used as a test for adequacy (Jencks et al., 1972). Nevertheless, there remains for many Americans the conviction that no education can be called adequate in a democratic society if educational benefits are not equitably distributed. Accompanying this is the belief (at least in some quarters) that no education can be called adequate if it does not support the making of individual life plans and empower diverse persons to become what they choose to be (Dewey, 1916; Peters, 1967; Rawls, 1973; Reid, 1967).

From a philosophic point of view, there can be no single measure of adequacy, any more than there can be a single definition of education. Israel Scheffler has made the point that definitions of education, unlike definitions in the scientific fields, express differing conceptions of what the enterprise ought to be, what programs ought to be developed, what methods ought to be put to use. They are, in other words, "programmatic" definitions: they single out things towards which social practice is oriented in a certain way (Scheffler, 1960). Since such definitions often express moral choices, and since they refer beyond themselves to particular modes of action, they cannot be judged in terms of accuracy or consistency. To speak of educational adequacy with this in mind, therefore, is to open the realm of what is conceived to be programmatically worthwhile. It may follow that, once we choose to deal with notions of educational adequacy, we become involved with normative considerations, with decisions about what American education ought to be.

In most conceptualizations of education, in any event, there is an assumption that something worthwhile is being transmitted "in a morally unobjectionable manner" (Peters, 1978). Intentional action is being undertaken to move persons (or to get them to move themselves) from a less to a more desirable state of mind. Dewey, for instance, made a consistent effort to link what he called "social efficiency" (or the ability to make a living) to "the high worth of personality" for the sake of achieving "distinctively valuable experience" (Dewey, 1916). The worthwhile for him was not simply "growth and more growth"; it entailed increasingly enriched and enlarged experiences, a continually expanding perception of meanings, more and more diversified and cooperative "associated life" (Dewey, 1927). And, indeed, Dewey saw education as the intentional fostering of emotional, behavioral, and cognitive capacities for the solution of the full range of "life problems" and the pursuit of a variety of "life goals." He put considerable emphasis on social inquiry, critical thinking, and communication; and, as is well known, he never ceased emphasizing the centrality of intelligence. Nevertheless, there were educators in later years who persisted in watering down his notion of "education for life" and confusing it with an endless array of "activities," many of them trivial, many of them primarily vocational. Dewey himself called that a "bargain-counter" approach, lacking "definiteness of aim" (Dewey, 1916; Dewey, 1940). Others distorted what he originally meant by identifying it with "life-adjustment" education (Cremin, 1961). This obviously lacked the critical, hypothetical dimension of Dewey's thought, just as over-reactions to his explicit anti-formalism ignored his concern for structure and what he sometimes called "mindfulness" (Dewey, 1934).

For Dewey, education was a larger concept than schooling. As he saw it, education took place whenever people came together to talk or to work or to play; but such education was "incidental" (Dewey, 1916). Only in the school, he believed, was education carried on intentionally and deliberately. Lawrence A. Cremin, differing with him on this point, asserts that many of society's institutions educate intentionally: publishing houses, television studios, churches, families, even workplaces; and he has elaborated the idea of "education for life" into what he calls an "ecological approach" (Cremin, 1976). This approach takes into account the interrelated educational configurations throughout the culture, many of them interacting with or overlapping what happens in the schools. He writes that the approach is neutral "with respect to the aims of education," but indicates that values can still be applied and judgments made. "To what extent does an educational program or opportunity help individuals extend their horizons, heighten their sensibilities, and rationalize their actions? To what extent does it assist and encourage individuals to seek further education? Those familiar with the Deweyan theory will recognize here the principle of growth: the end of education."

It is difficult to establish a standard of adequacy if education is defined in this fashion, since growth is both particular and open-ended. Also, if education is conceived to be a function of multiple social institutions, learners can no longer be thought of as young people, members of the oncoming generation. In the "ecological" framework, education becomes a lifelong affair. It begins with the first gesture made to the infant in the crib; it ends in whatever circumstances the aged complete their lives. A truly adequate education, then, would encompass the entire culture; society would become a "learning society" (Dewey, 1916) in a novel sense. [This is what Henry David Thoreau had in mind when he talked of New England's hiring all "the wise men in the world to come and teach her." That, he said, "is the uncommon school we want. Instead of noblemen, let us have noble villages of men. If it is necessary, omit one bridge over the river, go round a little there, and throw one arch at least over the darker gulf of ignorance which surrounds us" (Thoreau, 1963).] Remote as all this may seem at the moment, it remains the case that education must be thought of as the product of many interfacing systems, or what Urie Bronfenbrenner called an "ecology" (Bronfenbrenner, 1976). Writing on another occasion, Bronfenbrenner attributed much of the alienation and antagonism of the younger generation to the lack of parental participation in their lives (Bronfenbrenner, 1975). Adequacy of education, clearly, is a function (at least to an extent) of cooperative transactions among the many groups and agencies that affect the lives of the young.

There remains the question of whether approaches oriented primarily to growth as an end take into account the full complexity of contemporary life: the scale of existing institutions; the impact of technology in its many forms; the erosion of traditional family life; the ubiquity of the media; the disappearance of neighborhoods and the face-to-face community. Changing patterns of immigration put new pressures on the schools; bilingualism, mainstreaming, equity considerations, and concern for the gifted all complicate the problem of determining adequacy. Uncertainties have often been expressed with respect to the experiences that are selected out as most conducive to growth, contributory to excellence, or useful in the ordinary world of work. Dewey, of course, distinguished between what he thought of as "educative" and "miseducative" experiences. He wrote that "the central problem of an education based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences (Dewey, 1938). The "quality" of an experience was contingent, as he saw it, upon the degree of curiosity aroused, the desires and purposes set up, the perspectives opened for new understanding and inquiry. There are experiences, quite obviously, that make people passive, that offer a false sense of comprehension, that prevent individuals from taking initiatives and finding things out on their own. Repeated television experiences can have this effect; so can drug experiences and engagement with certain peers. As important, in this increasingly "noisy" society, are the messages that reinforce the taken-for-granted and inform audiences of their powerlessness to bring about change. We know that some consciousness of open possibility, some conviction that things can be otherwise, are stimulants to learning--since to want to learn is to want to become different than one is. There is a sense, then, in which adequacy does depend upon deliberate attempts to enable students to examine the many ways in which their experiences are mediated, to reflect on the messages received and the ways in which everyday lives are lived. We have learned from the psychologists about the importance of cognitive dissonance (Festinger, 1962). We know that development is stimulated when problems are presented that are appropriate to a higher stage of development than the one at which the student is (Turiel, 1966). Dewey's idea of what is "educative" can be integrated with findings such as these; but this may not be sufficient to satisfy the criteria of adequacy in the post-industrial society or in what is sometimes called the post-modern world.

Young people must be specifically empowered to comprehend the technical languages used in discussions of nuclear energy, environmental problems, issues arising in the health and human service fields; they must also become conceptually competent enough to distinguish between a created artifact (a television commercial, a news program) and whatever can be conceived as actuality. They must become morally acute enough to recognize those situations that make moral demands upon them (as in the case of the plight of the elderly, the presence of minority groups in a community, the marketing of drugs outside a school). They must become critical and thoughtful enough to deal with the constant insistence that dignity and a sense of identity are somehow connected with the ownership of expensive commodities. In addition, they must be enabled to master the many modes of "knowing how" that may be required of them in a society caught up in technological and economic change. An adequate education can no longer be thought of as one that prepares individuals for specific kinds of work at which they are likely to spend their lives. Nor can it be thought of as one that assumes quality of craftsmanship or a high level of productivity. As never before, education must equip the young with a full range of literacies; it must empower them to cope with a continually changing world.

Modern philosophers have been generally concerned about problems of knowing and about the relation between education and the ways in which the world is interpreted. Alfred North Whitehead, arguing eloquently against "mental dry-rot" and "inert ideas," wrote that "education is the art of the utilization of knowledge" (Whitehead, 1929). He objected both to the disconnection of subjects in curriculum and to the separation of education from life. Education, he said, must be abstract and concrete; its "utility" is to be found in its contribution to the clarification of aspects of the world. He believed in the cultivation of special interests and specialized studies, because he believed that only in the pursuit of concrete interests could the formulation of general ideas be appreciated. And general ideas in their relationship, he said, are what make possible the comprehension of life.

Indeed, for many philosophers, adequacy has a good deal to do with the ways in which learners' outlooks are transformed by what they learn, by (again) the ways in which they use the knowledge gained. Their grasp of features of the surrounding world ought in some manner to be characterized by the conceptual styles or the cognitive styles (Schutz, 1967) they have mastered as they have entered into the various domains of knowledge or what have been called the "realms of meaning" (Phenix, 1964). Learners need to be initiated into the forms of knowledge that structure experience on levels of increasing complexity through the use of what Paul H. Hirst has called "accepted public symbols" (Hirst, 1965). There is some agreement, however, that education does not only entail the mastery of forms of knowledge. For one thing, the disciplines ought to provide perspectives on lived situations, on the world of work, on the domain of common-sense reality (Schutz, 1964). For another, as Jane Roland Martin has written, an adequate curricular paradigm ought to be one "that does not ignore the forms of knowledge, but reveals their proper place in the general scheme of things as but one part of a person's education; one that integrates thought and action, reason and emotion, education and life; one that does not divorce persons from their social and moral contexts; one that embraces individual autonomy as but one of many values" (Martin, 1981). Like William Frankena, she rejects the notion that "only knowledge should be taught" (Frankena, 1970). There is no need to separate the conceptualizing processes that are so fundamental from human emotion, intuition, and imagination; nor is there any need to separate them from what John Passmore calls "'critico-creative' thinking" or from critical discussion, even of accepted rules (Passmore, 1967). Anthony Wallace has written that he would like to see a generation of high school graduates "all willing to reject a conclusion reached via a demonstrated non sequitur." He gives as an example the argument that, because Communists believe in racial equality, all those who press for racial equality must be Communists. Then he asserts, quite seriously, that "a readiness to squeeze a non sequitur out of a simple syllogism can ruin a person's or a nation's career as surely as bullets of hydrogen bombs" (Wallace, 1961). It is possible to summon up many other examples of cognitive deficiencies or logical mistakes of similar consequence.

It follows that a concentration on discrete skills and competencies is inadequate if we intend to educate for conceptual clarity and critical understanding. It is generally acknowledged today that, for example, a mastery of the basic skills (of decoding and sounding out words or phrases) is insufficient when it comes to learning to read and progressing to higher levels of comprehension. The capacity to draw inferences is required, once young people move beyond the basal readers; the ability to think critically, to organize material, to recognize figurative language becomes equally important. The fact that such capacities are not developed in many cases may be due to excessive television viewing, insufficient reading for pleasure, lack of experience with writing, or an absence of rigor in the total curriculum. In any event, there is some recognition that overemphasis upon the "basics" may withdraw attention from the cultivation of more advanced abilities. It begins to appear that much of education is inadequate, by prevailing standards, even in the nurture of what is thought of as literacy.

There are many who believe that the only adequate form of public education today is that explicitly geared, from the very start, to cognitive efficacy. R. S. Peters, along with a number of other British philosophers, objects to treating education as a neutral process instrumental to something extrinsic that is thought to be worthwhile. If, on the contrary, "we do specify an appropriate 'aim,' such as the development of individual potentialities or the development of intellect and character, then the aim would be intrinsic to what we would consider education to be" (Peters, 1978). John Dewey also objected to finding ends "outside of the educative process to which education is subordinate." An imposed aim, he thought, is rigid; "it is not a stimulus to intelligence in the given situation...it is a limit set to activity." Thus he rejected the whole notion of education as preparation for a remote future; the primary aim of education was to enable persons to continue their education (Dewey, 1916). Clearly, to say this is to have in mind a particular kind of open society and a particular view of human capacity. For Dewey, education had the potentiality of freeing individual capacities "in a progressive growth directed to social aims." The good society, the democratic society, was one that set up no barriers to communication and, at once, allowed for full and equal participation of all its members.

Dewey notwithstanding, given the problems of contemporary society (the barriers to participation, the obstacles to authentic communication, the discouragement of "intellect and character"), it becomes difficult to set completely aside the idea of preparation or, at the very least, empowerment. Contemporary philosophers in this country are more likely to speak openly about education for "effective participation in the world" (Martin, 1981). Certainly, if we are to develop a notion of educational adequacy, we have at least to have a strong sense of the contexts in which education occurs and of the challenges to imagination and cognition posed by those contexts. This is not necessarily to take an instrumental approach nor to regard education primarily as preparation. It is, however, to hold in mind the values and concerns being articulated in our society and to try to clarify what is required if those values are to be realized and those concerns effectively met. Even though many current conceptions of adequacy seem to be linked to notions of training and skill development, what we have said already may indicate that what is actually being asked for is a kind of virtuosity and mastery, the kinds of cognitive development that might make it possible for more people to live more effectively in the world and, at once, to comprehend its features, at least to the extent that those features relate to their own lived situations.

To think of education focally concerned for cognitive development is not simply to recommend a discipline-centered or a subject-matter-oriented school. Nor is it to argue from some theory of knowledge to conclusions about what ought to be taught. Even when we make primary what is sometimes called cognitive development, we still have value choices to make. William Frankena once asked: "Suppose we hold that music is not knowledge, does it follow that it should not be taught?" And he responded: "Not unless we also accept the normative premise that only knowledge should be taught" (Frankena, 1970). Surely, an adequate education includes teaching in the domains of the arts, not simply for the creative experiences they offer but for the imaginative openings they make possible and the ways they sensitize persons to the appearances of the world.

An adequate education includes a range of constructive activities to equip young persons for a participant life in their communities. What with the disintegration of so many nuclear families, the replacement of neighborhood gathering places with shopping malls, and the powerful impacts of the media on the ways the young interpret the world, attention ought to be paid to the actualities of the way people live together and might live together. At the same time, opportunities ought to be sought for community action whenever possible, and a deliberate effort made to cultivate the skills and sensitivities required for active citizenship. The purpose of the kind of education we consider adequate is to empower diverse persons to take cognitive and imaginative action, to make diverse kinds of sense of the many-faceted world.

As Rousseau knew, and Dewey and Whitehead, a turn toward abstract formulation is unlikely if a rich and stimulating situation is not created in a classroom. There must be a concrete engagement with objects and events; there must be sensory and perceptual stimulation. This is where the questions begin, the feelings of dissonance, the need for conversation and dialogue. In elementary classrooms, subject matter may be thought of in terms of materials and activities; but it may still be regarded as subject matter, since there is always a pronounced experiential component in the understanding sought. There must still be organization; but the organization may be different from standard organization. David Hawkins has suggested a "spreading way out, by making many parts of the logically organized subject matter accessible to the already established means of knowing and interests and commitments of the learner" (Bussis, Chittenden, Amarel, 1975). By doing this, the teacher can create numerous entry points into knowledge for diverse children. Some children learn by using building blocks; others, by engaging in representational play; others, through caring for animals; still others, by studying the local community, or by keeping logs, or by making family trees. The point is that children learn similar things in different ways, even as they derive different understandings from similar experiences. Their prior experience and understanding may be, in such cases, as important a variable as their stages of development. The idea is to empower them to construct coherent systems of meaning about the world of whatever has been constituted as subject matter, and to do so by using all their resources—sensorimotor, aesthetic, and emotional as well as verbal and logical capacities. The ability of the teacher to see alternative possibilities of organization and to relate what he/she discovers to the children's learning patterns is of the first importance. So are the richness and complexity of the environment in the classroom.

When young people reach the stage of logical or symbolic operations, when they are capable of working with models or representations of reality, their instructors can stay closer to the logical organization as they understand it. It may be that the development of thought is dependent upon command of language, as Jean Piaget suggested (Piaget, 1953). It may be that, when a young person reaches adolescence, he/she first begins to use speech in the service of thought, as L. Vigotsky wrote (Vigotsky, 1962). For all the differences between them with respect to egocentric and contextual speech, they have made it possible to recognize that children and young people are involved in the growth of their own intelligence, that they themselves come to regulate the contributions of native endowment and environment. If it is the case, as Dewey once said, that philosophy is thinking "what the known demands," the philosopher cannot but respond to the work being done with respect to language and thought with the recognition that students, as persons, can be viewed as self-determining. What happens in their lives cannot be attributed mainly to maturational factors or to environmental factors alone. They may be regarded as being capable of devising projects or life-plans for themselves, of choosing themselves as learners, of pursuing what lies ahead. Peters writes that people "only begin to think of themselves as persons, as centers of valuation, decision, and choice, in so far as the fact that consciousness is individuated into distinct centers, linked with distinct physical bodies and with distinctive points of view, is taken to be a matter of importance in a society. And they will only really develop as persons in so far as they learn to think of themselves as such" (Peters, 1978). It follows that situations must be created in classrooms that place a high value on choosing and on individual vantage points, even as community is valued, and shared experience, and dialogue.

Considering students in such a fashion, teachers cannot but become concerned about provoking them to take imaginative and cognitive action on their own initiative within the domains of knowledge. It is not a matter of shaping or conditioning or motivating extrinsically. It is a process of sharing meanings in such a fashion that students may be moved—having grasped particular meanings and integrated them within their own structures of knowledge—to go on and learn. The issue in question may be the events leading up, let us say, to the Civil War. Due to certain points or clues provided by the teacher, there may be a gradual recognition that there existed some connection between the economic life of the country and the rise of internecine rivalry. Shocked into a new awareness (since most would have taken it for granted that the war was fought to free the slaves and nothing more), finding a significance in the idea that causes are always multiple (and may also have been multiple when the Vietnamese War and the Second World were fought), certain young people may find themselves aching to find out how it was among the millowners and the bankers and the small farmers and the plantation owners, how the plantation economy depended upon Northern banks, how and why conflicting systems collided, what President Lincoln really believed about the need to free the slaves. The point is that, if the teacher asks really telling questions, if those questions move students to find unexpected connections in their own experiences and eventually to pose their own questions, the ground will be prepared for their reaching out to learn. And, indeed, the same is true at any age. With very small children, questions can be provoked about the wind and the rain, about the differences in their family lives, about cooking, about buying things, about the work done by men and women in the world. It is only when they feel personal meaningfulness in what is being talked about that they will begin to wonder, begin to frame their own questions, and reach out to learn.

The point is that young people are newcomers to the learning community; and, through sharing the life of meaning, they are being introduced to a world. In order to enter it fully, however, they have to be provoked, stimulated, aroused to cognitive and imaginative activity; they have to be fully and energetically present to what is going on. Israel Scheffler writes about teaching in its special connection "with rational explanation and critical dialogue: with the enterprise of giving honest reasons and welcoming radical questions." The effective teacher, he suggests, "does not merely want to bring about belief, but to bring it about through the exercise of free rational judgment by the student" (Scheffler, 1965). Such a teacher, by engaging in dialogue with his/her students and disclosing his/her own thinking for their scrutiny, actually engages them in various modes of cognitive action. Also, he/she offers a new experiential possibility to those students, enabling them to recognize that "rational explanation and critical dialogue" are likely to make their lives more interesting, even as they enhance competence and independence. Much current research on teaching, as a matter of fact, stresses the active role of the learner and the need to create situations in which students interpret for themselves the instructional tasks presented to them, make workable problem spaces for themselves, and deploy--on their own initiative--their cognitive and imaginative skills. This can only happen when distinctive points of view are valued, when dialogue continues to take place among teachers and students, when teachers are aware of the importance of modelling and, at once, of the importance of intervening at particular moments, especially when something does not make sense.

In an atmosphere of this sort, the foundational skills can undoubtedly be taught more effectively than they can in a coercive or a "management" atmosphere. There are certain "closed capacities" that have to be learned if students are to reach out to find the answers to their own questions and, in time, begin teaching themselves. These are capacities like learning to count, to add and subtract, to take notes, to read alphabetized library cards (Passmore, 1980). General capacities are such capacities as the capacity to read, write, listen, and speak on more complex levels; but they depend upon mastery of low-level things that can be done automatically, once learned. It is generally thought that drilling or training is required if such learning is to take place; but it is unfortunate that so many people tend to ascribe adequacy when this amount of mastery is achieved. Gilbert Ryle has spoken of the acquisition of "skills, knacks, and efficiencies," of ways of doing things, and of the need to use such rote knowledge in higher-level tasks that are not automatic and cannot be done without thinking. In some sense, he was talking about habit formation and then about the disposition to proceed thoughtfully and intelligently. The point, he said, is to get students to make independent moves of their own within the various domains by giving them the "*modus operandi*." He wrote: "I give you the *modus operandi*, but your operatings and trying to operate according to this *modus* are your own doings and not my inflictings, and the practicing by which you master the method is your exertion and not mine" (Ryle, 1967).

It is only when students, no matter what the age, have mastered the rotes and experimented with the "*modus operandi*" that they can grasp the concepts or the principles that structure particular fields of knowledge. Concepts may be called clusters of meaning; they may be used to refer to certain regularities or patterns of events. Principles have to do with the major premises in the logical organization of particular disciplines. To make sense of the events preceding the Civil War, for example, a student must be introduced to terms like "property," "due process," "free labor," "productivity," "landholder," "territory," "confederacy," "federalism," "colonization." To do history with respect to all of this, he/she must achieve some familiarity with the protocols in use in various modes of historical thinking, with the nature of historical explanation, with such terms as "evidence," "record," "fact," "cause," "trend," "tendency," and even "crisis" and "event." All this enables people to learn "how things are related," as Jerome Bruner says (Bruner, 1973). To be able to conceptualize is to be able to order particulars, to pattern, and--most important--to interpret. To comprehend the organization of a discipline is to become acquainted with one of the traditional perspectives or systems that have made knowledge communicable and, in so doing, to become able to respond to a specific range of questions. The student who is acquainted with various modes of structuring, of thematizing, will presumably know what he/she is doing and continue on to take his/her own cognitive action --go on, as it were, to teach himself/herself.

Stress has been placed on all of this because of the view that adequacy has to much to do with the kind of cognitive action described and the situations that make that kind of action possible. It is indeed the case that the dominant voices in the culture speak out in favor of the "basics" mainly (except, perhaps where their own children are concerned). Achievement is the primary focus; adequacy is equated with a measurable level of achievement within a given school. But it is also the case that there is a rising concern for "quality" in education, for what has traditionally been called "excellence." This means a turning away from the idea of "minimum" competencies to what are sometimes called "maximum" competencies, toward new modes of mastery and a transcendence of what are thought to be the limits of what ordinary children can learn. Nevertheless, the emphasis is still laid on end-points, on objectives. Little is said about community life in the school; little is said about freedom or justice or ordinary human concern.

There is evidence now of a demand for education at more sophisticated levels of literacy; and this may make it possible to summon up alternatives to product-orientations and measurable competencies. Diane Ravitch, writing on "educational reform" and the need for school improvement, takes issue with the "sociological perspective" that has dominated public policy. She believes that that perspective has made it impossible to ask properly educational questions. She asserts, however, that there is general support "for the idea that schooling is a necessary mechanism for achieving society's goals: to prepare the younger generation to be thoughtful citizens; to enable each person to appreciate and contribute to the culture; to sharpen the intellectual and aesthetic sensibilities for lifelong enjoyment; to develop readiness for the educational, occupational, and professional choices that each person will confront; to kindle a sense of responsibility for others and a sense of integrity; to teach children how to lead and how to follow; and to acquaint young people with the best models for achievement in every field while encouraging them to strive to realize their own potential" (Ravitch, 1981). Others, like Chester Finn, are asking for a more rigorous, discipline-centered education (Finn, 1981). There is little discussion of individual differences or of differential approaches to cognitive learning; little attention is paid, in the new discourse of critique, to the work being done on individualized learning or on learning styles. Nevertheless, there is enough sense of insufficiency with respect to education to make it likely that new conceptions of adequacy will be developed.

Grounded in their own lived worlds, in their diverse common-sense realities, many sorts of young persons can be empowered to move in and of the "provinces of meaning" Alfred Schutz described. Certain ones are identified with the sciences; others, with the arts; still others, with social theories. Each is characterized by a distinctive "cognitive style"; each makes possible a distinctive sort of "wide-awakeness," a way of directing attention to the world (Schutz, 1967). The young can be and should be introduced to the many ways there are of symbolizing their realities, including the "languages" of the arts. Symbolization serves many cognitive purposes, writes Nelson Goodman, "by the delicacy of its discriminations and the aptness of its allustion; by the way it works in grasping, exploring, and informing the world; by how it analyses, sorts, orders, and organizes; by how it participates in the making, manipulation, retention, and transformation of knowledge" (Goodman, 1976). Informed engagements with music, painting, literature, dance, and the other art forms heighten perception, allow for the free play of feeling, allow individuals to imagine alternative realities. Not only do they bring persons in touch with the shapes and sounds and colors of the appearing world; they intensify wide-awakeness and provide a continuing sense of untapped possibility. Moreover (and this, too, has much to do with adequacy), they enhance attentiveness; and attentiveness has moral implications as well as cognitive ones.

To awaken value consciousness, to make people aware of the virtues, is to involve them in the concreteness of human situations to which they must learn to attend. Part of an adequate education in this time ought to be a deliberate effort to empower persons to respond to moral demand. Yes, there must exist a normative community structured by principles to which individuals can refer at moments of choice. There must be opportunities for their preferences to be released, for values to be created, for relationships to be affirmed. And there must be the capacity to look at things as if they could be otherwise. Freedom, responsibility, clarity: all must be deliberately nurtured if education is to be in any way adequate. A "moral imagination of the lives of others," Frankena has said, is as important as factual knowledge and scientific intelligence. Compassion, connectedness, a "vivid and sympathetic representation in imagination" of others interests, are as significant as the capacity to make moral judgments (Frankena, 1958).

The implications for policy are, to a degree, complex. The general tendency of the philosopher is to construct a vision of education grounded in a concept of process rather than of product. The searching, the interpreting, the thinking the philosopher wants to see are not easily subjected to quantification. When learning is conceived in the light of free initiatives, what must be attended to are process and atmosphere. In the first place, this suggests new approaches to evaluation, additional to and (often) alternative to traditional testing and measurement. There must be ways of involving all the participants in the evaluation process: supervisors, teachers, parents, students as well. If individual perspectives and individual centers of consciousness are being given regard, there can be no single or dominating perspective used to determine whether the kinds of learning considered adequate are taking place. There is no question but that skills (both closed and open capacities) remain fundamental; but, according to the viewpoints consulted in this discussion, capacities develop in response to the need to find answers, to inquire, to solve puzzles, to make concrete sense. Granted, what the British call the rotes must be taught as a foundation for what follows; but they must not be taught for their own sake, and it must be understood that they only begin to serve higher cognitive purposes when learners try them out on their own initiative, elaborate on them, practice them, make them their own. Support is required for the transformations in assessment and evaluation that may involve numbers of people (trained and untrained) directing attention to the ways in which children talk, the way they pose their questions, the time they spend on their "tasks," the ways in which they play chess and other games, their conduct in the playground or the playing field, their patterns of action at home and on the street.

Recognition that the school, as system, interfaces with a number of other systems--families, agencies, clinics, churches, recreational centers, and the like--policy-makers might consider seriously the "ecological view" (Bronfenbrenner, 1976). If it is indeed the case that learning is most effective when it is initiated by a student asking his/her own questions, pursuing his/her own quest, professional help of various kinds may be needed to release certain troubled or distracted young people from the constraints imposed by family tensions, illness, street violence, and poverty. Adequate education, in these times, cannot be expected to occur in a vacuum; the development of "maximum" competencies, for instance, depends at least to some extent upon networks of support. The target populations once addressed by federal education programs still exist: the disadvantaged, the migrants, the handicapped, the non-English-speaking. It is unlikely that the proliferation of programs that marked an earlier decade will occur in the present period; but this should not mean that supports necessary for the advancement of literacy and the development of cognition have to be swept away. For all the diverse views of educational adequacy, there is a fundamental recognition that the population of a highly technologized, economically troubled country can neither survive effectively *nor* contribute to the wealth of the nation if it is not empowered differentially to grasp the complexity of the modern world. In addition to that, there is the matter of the fragility of human rights and freedom at a moment when totalitarianism is sweeping more than half the globe. The Jeffersonian argument about the relation between education for literacy and the health of the republic still holds; and this is another argument for continuing investment in public schools.

Finally, there are the policy implications where teachers are concerned. All the thinkers mentioned in this paper are asking for a relatively conplex kind of initiation into the learning community or into the forms of knowledge. Technical training for teachers is in no way insufficient; nor is it sufficient for teachers to think of themselves as already trained. In every field, knowledge and technology are changing. Literary criticism is disclosing new dimensions of the reader response, dimensions with clear implication for English teaching and reading instruction. Mathematics is always in process of tranformation. Computerization is affecting the social sciences, as are ethnographic studies and studies of human perception. All this signifies that the education of teachers must be ongoing, if they are to stay anywhere near the frontiers of knowledge in their fields. And this suggests the need for many kinds of enrichment: through teacher institutes, summer seminars, study visits to other institutions. If adequate education is understood to be the kind of education that does more than train the young in predefined competencies, teachers have to be cultivated and scholarly in ways thus far unfamiliar. It may be that, if the image of the teacher is changed from a "service" image to an image of critical thinking and critical consciousness, the "brain drain" from the profession will cease.

For the philosopher, there is no way to draw logical inferences for practice from statements about knowledge, value, and the nature of reality; nor is there any simple way of moving from philosophical discourse to policy recommendations. There is only the reminder to think clearly and inclusively about all the factors involved. There is only the call to clarify what it signifies to live in a free country in the last part of the 20th century and what the public schools might do to maintain it as productive and free.

References

Bronfenbrenner, U. "The Experimental Ecology of Education," Teachers College Record, December 1976, Vol. 78, No. 2.

"Socialization and Social Class Through Time and Space," in Readings on the Sociology of the Family, ed. B.N. Adams and P.C. Glick (Chicago: Markham Publishing, 1975).

Bruner, J. "The Perfectibility of the Intellect," in The Relevance of Education (New York: W.W. Norton & Co., 1973), pp. 3-19.

Bussis, A.M., Chittenden, E.A., Amarel, M. Beyond Surface Curriculum (Boulder, Colo.: Westview Press, 1976), pp. 24-26.

Butts, R.F. The Revival of Civic Learning (Bloomington, Ind.: Phi Delta Kappa Foundation, 1980), pp. 74, 75.

Callahan, R.E. Education and the Cult of Efficiency (Chicago: University of Chicago, 1963).

Cremin, L.A. Public Education (New York: Basic Books, 1976), pp. 50, 51.

The Transformation of the School (New York: Alfred A. Knopf, 1961), pp. 335,336.

Dewey, J. Art as Experience (New York: Minton, Balch & Co., 1934), p. 263.

Democracy and Education (New York: The Macmillan Co., 1916), p. 129, p. 164.

Experience and Education (New York: Collier Books, 1963).

"Monastery, Bargain Counter or Laboratory in Education?", in Education Today, ed. J. Ratner (New York: G.P. Putnam's Sons, 1940), p. 238.

Duncan, O.D. and Featherman, D.L. "Psychological and Cultural Factors in the Process of Occupational Achievement," (Ann Arbor, Mich.: Population Studies Center, University of Michigan, 1971).

Festinger, L. Theory of Cognitive Dissonance (Stanford, Calif.: Stanford University Press, 1962).

Finn, C.E., Jr. "Towards a New Consensus," Change, September 1981, pp. 16-21.

Frankena, W.K. Ethics (Englewood Cliffs, N.J.: Prentice-Hall, 1963).

"A Model for Analyzing a Philosophy of Education," in Readings in the Philosophy of Education, ed. J.R. Martin (Boston: Allyn and Bacon, 1970), pp. 15-22.

"Towards a Philosophy of Moral Education," *Harvard Educational Review*, Vol. 28, Fall 1958, pp. 300-313.

Goodman, N. *Languages of Art* (Indianapolis: Hackett Publishing, 1976), p. 258.

Hirst, P.H. "Liberal Education and the Nature of Knowledge," in *Philosophical Analysis and Education*, ed. R.D. Archambault (New York: The Humanities Press, 1965), pp. 113-138.

Honeywell, R. *The Educational Work* of Thomas Jefferson (Cambridge, Mass.: Harvard University Press, 1939), pp. 199, 200.

Jencks, C. et al. *Inequality* (New York: Basic Books, 1972).

Mann, H. "Twelfth Annual Report," in *The Republic and the School*, ed. L.A. Cremin (New York: Teachers College Press, 1957), p. 87.

Martin, J.R. "Needed: A New Paradigm for Liberal Education," in *Philosophy and Education*, ed, J. Soltis (NSSE, Chicago: The University of Chicago Press, 1981), pp. 37-59.

Oakeshott, M. *Rationalism and Politics* (London: Methuen Press, 1962).

Passmore, J. "On Teaching to Be Critical," in *The Concept of Education*, ed. R.S. Peters (New York: The Humanities Press, 1967), pp. 192-211.

The Philosophy of Teaching (Cambridge, Mass.: Harvard University Press, 1980), pp. 37-55.

Peters, R.S. "Education as Initiation," in *Philosophical Analysis and Education*, *op. cit.* (see Hirst), pp. 87-111.

"Education and Human Development," in *Education and Reason*, ed. R.F. Dearden, P.H. Hirst, and R.S. Peters (London: Routledge and Kegan Paul, 1972), pp. 111-130.

Ethics and Education (London: George Allen & Unwin, 1978), pp. 27-28, pp. 210-213.

Phenix, P.H. *Realms of Meaning* (New York: McGraw-Hill Book Co., 1964).

Piaget, J. *The Origins of Intelligence in the Child* (London: Routledge and Kegan Paul, 1953).

Ravitch, D. "Forgetting the Questions: The Problem of Educational Reform," *American Scholar*, Summer 1981, pp. 337, 338.

Rawls, J. *A Theory of Justice* (Cambridge, Mass.: Harvard University Press, 1971).

Reid, L.A. "Philosophy and the Theory and Practice of Education, in *Philosophical Analysis and Education*, *op. cit.*, (see Hirst), pp. 17-37.

Ryle, G. "Teaching and Training," in *The Concept of Education*, *op. cit.*, (see Passmore), pp. 105-119.

Scheffler, I. *Conditions of Knowledge* (Glenview, Ill.: Scott, Foresman and Co., 1965).

The Language of Education (Springfield, Ill.: Charles C. Thomas, 1960), pp. 11-35.

Schutz, A. "On Multiple Realities," in Collected Papers: *The Problem of Social Reality* (The Hague: Martinus Nijhoff, 1967), pp. 229-259.

Thoreau, H.D. *Walden* (New York: Washington Square Press, 1963), p. 82.

Turiel, E. "An Experimental Test of the Sequentiality and Developmental Stages in the Child's Moral Judgment," *Journal of Personal* and Social Psychology, Vol. 3, 1966, pp. 611-618.

Vigotsky, L. *Thought and Language* (New York: John Wiley and Sons, 1962).

Wallace, A.F.C. "Schools in Revolutionary and Conservative Societies," in *Anthropology and Education*, ed. F.C. Gruber (Philadelphia: University of Pennsylvaniz Press, 1961).

Whitehead, A.N. *The Aims of Education* (New York: Mentor Books, 1949), p. 43.

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EDUCATIONAL ADEQUACY: A CONCEPT IN SEARCH OF MEANING

Arthur E. Wise

BACKGROUND AND BASICS

The term "educational adequacy" is a fairly recent addition to the lexicon of school finance. It takes its place alongside such concepts as "minimum foundation amount," "satisfactory minimum offering," the "equalization of school support," and "equal educational opportunity." Each of these abstract concepts has at one time or another guided discussions of school finance. As concepts--sometimes as ideals or even goals--they have had to be given operational meaning. This paper will describe the origin of "educational adequacy" and describe the problems associated with giving it operational meaning.

Educational adequacy as a common-sense construct has a common-sense meaning. Are schools "adequately" financed? Are children receiving an "adequate" education? Immediately, however, one discovers that "adequate" is a judgmental word. Adequate in comparison to what? Adequate for what purpose? Can the term be defined in a way that is philosophically satisfying? Is it technically possible to give the term operational meaning? If so, is the measure politically feasible to adopt? Finally, what would the cost implications be?

Educational adequacy as a school finance term probably has its origin in *San Antonio* v. *Rodriguez*.[1] This case was brought in order to challenge unequal expenditures among the school districts of Texas. *San Antonio* remains the major U.S. Supreme Court decision regarding school finance reform.

The objective of the "school finance reform" movement that began in the late sixties was to equalize educational expenditures within a state (Wise, 1968). But in *San Antonio*, which upheld the Texas school finance system, school finance reform was implicitly given a new objective. The decision turned, in part, on whether Texas provided an *adequate* education when judged by the future demands of citizenship.[2] According to the Court's reasoning, the imputed objective of state school finance plans is to provide an "adequate minimum [*sic*] educational offering,"[3] thus "assuring a basic education"[4] for every child in the state. The test of this objective would be that each child have "an opportunity to acquire the basic minimal [*sic*] skills"[5] necessary to exercise the fundamental rights of citizenship. The objective of state school finance plans as conceived by the Court in *San Antonio* is neither equal educational opportunity nor equalization of educational expenditures. It is, instead, the provision of a minimally adequate education as judged by an outcome standard.

Mr. Justice Marshall, in his dissent, criticized the Court's "retreat from [its] historic commitment to equality of educational opportunity."[6] He questioned the majority's acceptance of the argument that the state's minimum foundation program of state aid to local school districts guaranteed an adequate education to every child.[7] Finally, he wondered how the Court could know that the state aid program provided "enough" education when the Court elsewhere accepted the "expert opinion" that cost and quality are not related in education.[8] Marshall's dissent drew attention to the problem of defining an adequate level of educational achievement.

A number of state court decisions following *San Antonio* have grappled with education standards and in the process have given additional meaning to the idea of educational adequacy. The New Jersey Supreme Court in *Robinson* v. *Cahill* explicated the term "thorough and efficient education."[9] The Washington Supreme Court in *Seattle* v. *Washington* explicated the term "ample education."[10] The Supreme Court of West Virginia in *Pauly* v. *Kelly*[11] and a New York court in *Levittown* v. *Nyquist*[12] both sought to explicate the clauses of their state constitutions establishing public schools. These decisions assume that it is possible to establish statewide standards. Yet careful analysis of the decisions reveals that the establishment of standards will not be a simple task.

The New Jersey Supreme Court called for the provision of that educational opportunity which is needed in the contemporary setting to equip a child for his or her role as a citizen and as a competitor in the labor market. The logic of the statement requires first the specification of the role of the citizen and the competitor in the labor market. In specifying these roles, the state must resolve certain controversial issues. Is the good citizen one who is loyal to his country? Or is he one who has the intellectual tools to challenge the social order? Is the school to prepare people to compete for entry-level jobs? Or careers? After settling such questions as these, the state must then determine the nature of the educational opportunity that will result in the attainment of the standard. It is likely that this linkage has never yet been satisfactorily established in practice--or even in research. Complicating the situation in New Jersey is the court's acceptance of the Public School Education Act of 1975. To the court's original political and economic goals was added the goal of preparing the student to function socially. The 1975 Act also called for instruction intended to produce the attainment of reasonable levels of proficiency in the basic communications and computational skills. Will the attainment of reasonable levels of these skills prepare a person to function in society? Put this way, the question is tautological; "reasonable" is the level required. To render the statement nontautological will require new empirical work. It is work that must be done, for the state has guaranteed thorough and efficient education for all. The educational standard--as promulgated in New Jersey--is demanding if it is taken seriously.

When a state assumes a duty, its citizens acquire a right. This legal principle was clearly established in the state of Washington, where all children now have the right to have the state make ample provision for their education. After carefully defining terms,[13] the Washington Supreme Court incorporated the ideas espoused in the New Jersey decision. Students are to be given broad opportunities to be equipped for their roles as citizens and competitors in the market. The Washington court saw fit to add another objective: Students are to be prepared for the marketplace of ideas. While the court attempted by its decision to guarantee effective teaching, its chief result was to guarantee students only the opportunity to learn. It was careful not to say that they *would* learn. At some point the state may have to deal with the idea that teaching can be effective when students do not learn much. The two phenomena may be irreconcilable.

Students are to be prepared only for the three enumerated adult roles: as citizen, competitor in the labor market, and competitor in the marketplace of ideas. The skills necessary for these roles are the essential skills; this constitutes basic education as opposed to total education. The state is responsible for basic education; local school systems are apparently responsible for the balance, which, when added to basic, constitutes total education. The state will have to distinguish education that is merely attractive or tangential from that which is essential to the enumerated goals. The logic of it all may pose a few problems. Students are to be prepared for intelligent and effective competition. Presumably, the state will have to ensure that some students are not given competitive advantages by their local school systems as part of total education. Put differently, is the student who is merely competent in the basics amply prepared for competitive life?

In response to the court decree, the Washington legislature passed the Basic Education Act, which may--or may not--meet the demands of its logic. The school-based skills that the law enumerates[14] may or may not lead to the life-role competencies. The program requirements may or may not lead to the acquisition of the school-based skills. The staff ratios, etc., may or may not result in effective programs. The requirements of standards-based education are very demanding.

The establishment of standards is attractive, yet it requires agreements on educational objectives and the establishment of educational priorities. Is vocational education *optional* or required? Is moral education optional or required? A legal decree purporting to delineate that education which is required cannot avoid answering such questions. If it does, only further litigation can settle the questions.

The West Virginia Supreme Court repeated the ambiguity implicit in the Washington decision. It called for a "high quality" system for all, but allowed for local funding overrides. In so doing, it has left the same unresolved tension existing in the state of Washington in the distinction between basic and total education. However, the West Virginia court left the tension implicit for its opinion offers a very comprehensive list of educational objectives.[15]

The West Virginia court did introduce a new element in its definition of a thorough and efficient system of schools--the qualifier, "as best the state of education expertise allows." Thus the system must develop in every child literacy and the other enumerated educational objectives "as best. . . ."

The West Virginia mandate is very comprehensive; indeed, it is difficult to imagine a specific educational objective that is not encompassed by the eight stated objectives. Moreover, the language of the opinion is such that one can only conclude that every student has the right to have developed his mind, body, and social morality to be prepared for useful and happy occupation, recreation, and citizenship. The problem of constructing a school system that will deliver on this promise is clearly a challenge. Moreover, should the school system fail to deliver on the promise, there will be clear recourse to the courts. While the "state of education expertise" clause is something of a release valve, there will always be the question of whether a particular school system, school, or teacher has delivered it.

The problems of New York's cities clearly dominated the New York decision. The court accepted the idea of education overburden as a way of permitting additional resources to flow to the cities. While financial matters dominated *Levittown*, it should not go unnoticed that the court incorporated the idea that all children are to be given the opportunity to acquire those basic skills necessary to function as a citizen in a democratic society. Whatever finance formulas are devised in New York, one test that they will have to meet is the "opportunity" that they do or do not provide. Moreover, one may ask, what is the test of the provision of an opportunity? The failure to acquire the basic skills may be taken as *prima facie* evidence that the proper opportunity has not been provided.

Traditionally, school finance has been concerned with guaranteeing a minimum expenditure on the education of every student. By guaranteeing a minimum educational expenditure for every student, traditional school finance practices have assumed that the state's obligation is to meet a minimum set of a student's educational needs. To be sure, lengthy debates could be and were held on the question of whether a specific foundation amount was sufficient to pay for a minimally acceptable education program. The debates were settled politically; whether the foundation amounts were adequate was subject to continuous reexamination. The debates were concerned with the distribution of resources, but skirted the educational truism that students differ in their needs: What may be adequate for some may not be adequate for others.

In recent years decisions about the distribution of educational resources have often been accompanied by statewide school accountability plans. These plans institute methods for measuring school outcomes (often student achievement tests) and include procedures for addressing deficiencies revealed by the assessment measures. In some states, like New Jersey, school finance reform and accountability mechanisms have gone hand in hand. In others accountability plans have inherent resource implications, though they are often unmet. Where school districts, schools, or students fail to meet state-defined objectives, unmet needs presumably exist--and education is inadequate. Responses to these needs would require that they be defined and a method for addressing them be specified. Formal accountability systems have the effect of shifting policy concerns from the distribution of resources--a concern for inputs--to the effects of resources or programs--a concern for outcomes. Thus they make it far more difficult for policymakers to specify standards and objectives that, by their nature, define the quality of education for which the state is responsible (and to which the state's students are entitled).

Judgments about whether students are entitled to "minimum," "additional," or "equal" expenditures are discomforting to policymakers. Judgments about whether students are entitled to minimum, adequate, equal, or maximal opportunity are similarly discomforting. They look arbitrary--and they are arbitrary. Policymakers would prefer to have a rational or scientific basis for such decisions. In this way they would be relieved of the necessity of justifying differences on value or political grounds. They could then design school finance formulas "scientifically."

Can a way be found to distribute funds rationally, i.e., according to a formal standard? The answer, as we shall show, is perplexing. *Apparently* rational systems can be found. Upon further scrutiny, however, it will be seen that these rational systems obscure judgments that must inevitably be made on nonrational grounds. A judgment of adequacy is a judgment about what a student needs. In common usage, "need" refers to a lack of something requisite, desirable, useful, or essential. The concept has meaning only when a standard of reference is also defined, i.e., when we know what the object is: Requisite for what? Essential for the attainment of what goal? Further, the answers to these questions will depend upon who is doing the defining. Who decides what is essential or useful for whom? Is there a static, objective goal that is the same for all? Or is need a concept relative to the individual? There are, then, two intersecting dimensions necessary to a determination of adequacy. First, the goal(s) against which needs are to be measured must be articulated; these may be the same for all students or different for different groups or individuals. Second, the source of the criteria for needs assessment must be determined and legitimized; the source may be the state, the service deliverers, and/or the client. This determination goes to the root of questions about the purpose of education in a democratic society and about the role of the state, of professionals, and of consumers--parents and children--in shaping that education.

If we assume that the state's purpose in providing public education is to ensure that the populace will attain certain kinds of capabilities, such as reading and computational skills, then the state's responsibility may be seen as providing extra resources to those who have not attained the specified levels of capability. The goal for all students is uniform, and needs are measured according to a deficit model: The need is the difference between the state-defined goal and the student's level of attainment. Adequacy is achieved when the need is met.

If, on the other hand, public education is meant to develop each student's potential to the maximum extent possible, then the state's responsibility to each student is far more complex. Goals vary for every student, and needs can be defined only in relation to someone's definition of each student's potential. Whose definition is acceptable? Do we rely upon the perceptions of service deliverers or clients, or perhaps the assessments made "objectively" by means of standardized tests? Do we seek to fulfill all potentials, or only some subset defined by the state? Do we hold the state accountable for provision of (and access to) services designed to offer opportunities for students' self-actualization, or for the outcomes exhibited by the students? What is adequate, then, is a judgment that can be made by the state, the service deliverers, or the clients.

Obviously, the answers to these questions are politically and philosophically troublesome. State systems of accountability, conceived according to rational management principles, require evidence that goals are being met, and they necessitate adjustments in the system (or sanctions) when goals are not met. Since potentialist goals can never be fully met, and their definition is individual rather than collective, they are not conducive to state accountability systems. Such systems, because they offer guarantees, tend to be collective and minimalist: They guarantee only that all students will receive at least X quantum of education. Though some groups of students may be declared entitled to different programs in order that they may reach "X," no effective guarantee can be made that each student will be given a program that will allow him or her to reach his or her maximum potential, for how would anyone know precisely what the state must be held responsible for, or when it has succeeded? Judgment of adequacy is very different under these two approaches.

The critical issues that arise when we consider how to judge adequacy revolve around the dialectic of two principles terms by Thomas F. Green, the educational philosopher, the "best principle" and the "equal principle." The "best principle" is the proposition that each student is entitled to the education that is best for him; the "equal principle" is the proposition that each is entitled to receive an education at least as good as (equal to) that provided for others (Green, 1980, p. 114). The "best principle" typically operates through the political system where group interests generate client definitions of needs that will be accommodated if political accountability mechanisms operate effectively. The "equal principle" is seen at work in the legal system where individual rights to equal treatment are translated into state duties that must be performed collectively but are enforced by individuals who seek recourse to legal accountability mechanisms.

The general goals of education incorporate both principles, and school policies seek to balance them in individual and collective cases. However, formal accountability mechanisms strive to translate general goals into specific goals or targets, the attainment of which can be objectively measured. Thus the state must resolve the dialectic between "best" and "equal" through formal systems or processes rather than through personal or political interchanges. Because of the necessarily formal, legal, bureaucratic nature of state actions, state accountability systems that seek to take account of educational needs must rely upon certain rationalistic assumptions about schooling (Wise, 1979):

1. Consensus on the objectives of education for all children can be readily reached and they are the same for all children.

2. The objectives of education can be precisely stated.

3. The needs of students--the gap between their present state and the objectives--can be assessed. If the needs are assessed, they can be met.

4. Instructional interventions can be designed to meet those objectives.

5. The attainment of objectives can be accurately and fully assessed by objective means.

These assumptions--while questionable--form the basis for most discussions of educational adequacy (Wise and Darling-Hammond, 1981).

Judging educational adequacy is somewhat like deciding on the proper foundation amount in traditional discussions of school finance. The foundation program stipulates a "satisfactory minimum offering," expressed in dollars per pupil, that will be guaranteed to every student. Conceptually, the foundation program has its roots in the writing of Ellwood P. Cubberley (1905, p. 17). In *School Funds and Their Apportionment*, Cubberley stated:

> Theoretically, all the children of the state are equally important and are entitled to have the same advantages; practically, this can never be quite true. The duty of the state is to secure for all as high a minimum of good instruction as is possible, but not to reduce all to this minimum; to equalize the advantages to all as nearly as can be done with the resources at hand; to place a premium on those local efforts which will enable communities to rise above the legal minimum as far as possible; and to encourage communities to extend their educational energies to new and desirable undertakings.

The key element is that every child is to receive a *minimum* of resources while individual school districts remain free to provide more than a minimum of resources. Although Cubberley began his argument with an appeal to the "equal principle," he quickly modified the concept to take account of what were considered to be practical realities, arriving at a formulation of "minimum" support.

In 1923 Strayer and Haig described their concept of the foundation program (Strayer and Haig, 1923, p. 173):

> There exists today and has existed for many years a movement which has come to be known as the "equalization of educational opportunity" or the "equalization of school support." These phrases are interpreted in various ways. In its most extreme form the interpretation is somewhat as follows: The state should insure equal educational facilities to every child within its borders at a uniform effort throughout the state in terms of the burden of taxation; the tax burden of education should throughout the state be uniform in relation to tax-paying ability, and the provision for schools should be uniform in relation to the educable population desiring education. Most of the supporters of this proposition, however, would not preclude any particularly rich and costly educational program. They would insist that there be an adequate minimum offered everywhere, the expense of which should be considered a prior claim on the state's economic resources.

Again, the key element is that every child is to have access to "equal educational opportunity," but communities are to be free to offer particularly rich and costly educational programs. The foundation program is predicated on the belief that the state is responsible for guaranteeing a minimum of educational resources to each student.

In the foundation program approach, adequacy is the politically determined minimum amount of resources. The idea of educational adequacy is a challenge to the notion that adequacy should be determined by reference to resource inputs. Educational adequacy directs attention to educational outcomes.

The following discussion will deal in greater detail with questions and topics I have touched upon in "Background and Basics."

Alternate Ways of Defining Adequacy

We shall take as our starting point a single definition of adequacy:

> Adequacy is the provision of that minimum educational opportunity necessary to (minimally) prepare students for adult roles.

Judgments must be made. One may judge *a priori* that an opportunity is "adequate" to produce the desired outcome. Or one may judge *a posteriori* that the opportunity did produce the desired outcome. For the sake of simplicity, we will say that the judgment may be made by policymakers (e.g., legislators and school board members), by educators (e.g., school administrators and teachers), or by students (or their parents). As each group judges, it may make its judgments against a uniform achievement standard or against flexible standards which recognize that students vary in their potentials and that their aspirations may legitimately be recognized within the system. Finally, judgments may be made formally (rationalistically, using formal objective-setting and evaluation procedures) or informally (using professional or parental observations).

JUDGING ADEQUACY

	Policymakers	Educators	Student/Parent
Uniform Standard Formal Informal			
Flexible Standard Formal Informal			

The table reveals twelve logical possibilities. Policymakers tend to rely upon uniform standards, formally applied, when they discuss accountability and minimum competency testing. When they discuss minimum foundation programs and school budgets, they may be implying uniform or flexible standards, formally or informally applied. Educators, when they discuss educational adequacy, are often making informal judgments about the adequacy of resources to produce desired outcomes. When educators discuss formal standards, they will mean uniform standards. When educators discuss flexible standards, they will usually be invoking informal appraisal mechanisms. When educators discuss the curriculum, they often invoke uniform standards either formally or informally appraised. Parents, judging adequacy, may be invoking uniform or flexible standards. Concerning uniform standards, they may worry about test scores (formal) or whether their child is ready to face the world (informal). Concerning flexible standards, they may worry about whether their child has high enough SAT's for Harvard (formal) or whether the school is adequately challenging their child's intellect (informal).

In short, adequacy is in the eye of several beholders and may be appraised formally or informally and against a uniform or flexible standard.

Adequacy of Current Expenditure Levels Under Alternative Definitions

In order to determine whether an expenditure is adequate, one must examine whether the educational opportunity purchased by that expenditure is adequate. Adequacy as defined in this paper refers to educational opportunities. In this framework, expenditures must first be transformed into programs or opportunities. Only then can one judge whether the expenditures are adequate. Alternatively, one may examine a level of expenditure and ascertain the adequacy of the opportunity that it will purchase.

In the past, state legislators have frequently set a level of expenditure, termed the minimum foundation amount, which they have asserted is sufficient to purchase a minimally adequate educational opportunity. School boards have followed a similar process. Dissatisfaction with this informal approach has led to emphasis upon testing, accountability, and other systematic approaches to determining adequacy. Current political dissatisfaction with the level of achievement of students obviously means dissatisfaction with the adequacy of opportunities provided. The financial implications are not usually addressed.

Educators often complain about the relative lack of resources available to provide an educational program adequate to meet the expectations of both policymakers and parents. They claim that rising expectations for student performance are not matched by expenditure levels.

Parents vary in their perceptions of educational adequacy. The 1981 Gallup Poll reports that 9 percent of *the public* give the schools an A rating, 27 percent a B, 34 percent a C, 13 percent a D, and 7 percent a failing rating. Ten percent had no opinion. Obviously, some parents represented in the poll feel that schools provide adequate opportunity, whereas others do not. To the extent that low expenditures are associated with a perception of inadequacy, it may be concluded that some parents believe that funding is inadequate. In the 1981 Gallup Poll, 30 percent of the respondents favored raising taxes if the public schools said they needed more money; 60 percent opposed raising taxes; 10 percent had no opinion.

In short, it is not possible to answer the question categorically.

The Problems of Equity in Distribution of School Resources

Equity in the distribution of resources remains a serious issue, as judged by the fact that litigants in numerous states continue to bring lawsuits. In the views of plaintiffs (who may be local board members, parents, or students), resources remain inequitably distributed. Probably in their view as well, funding is not adequate. (Were it adequate, they would not be likely to undertake lawsuits.)

Strictly speaking, total funds cannot be adequate (while inequity exists) unless one assumes that high-spending districts are wasting resources. If high-spending districts are not wasting resources, then they are providing more than adequate opportunity. Parents in such school districts have not been heard from. Hence we should conclude that some districts provide adequate opportunity (some, more than adequate opportunity), while others provide less than adequate opportunity.

The Reliability of Tools for Measuring Adequacy

It would be appropriate to check the reliability of tools for measuring adequacy separately for uniform standards and flexible standards. In each case, we should treat formal and informal means for judging adequacy. Obviously, the formal means are of special interest here.

Most discussion of measurement tools for determining adequacy assumes uniform standards. It is assumed that policymakers establish uniform objectives for all students; attainment of a certain score constitutes proof that adequate opportunity has been delivered. There is no doubt that psychometrically reliable and valid tests of the basic skills have been devised. Several questions, however, have never been satisfactorily answered. Precisely what constitutes (minimal) preparation for adult roles? Generally, only reading and arithmetic basic skills are tested. Surely performance on such tests is not sufficient proof that a student is prepared for adult roles. What other subjects should be tested? What level of proficiency is adequate? Is performance on a test sufficient proof that the student is prepared for adult roles?

Less formal use of test results to appraise adequacy is also possible. Currently, people form judgments about education generally as well as about specific schools and students by observing National Assessment of Educational Progress scores, SAT scores, and even grades. This less formal use of measurement is integral to the educational process. Unfortunately, simply examining such results, without taking account of students' preparation for school, leads to incorrect inferences about the adequacy or inadequacy of the opportunities provided.

Are measurement tools reliable for determining adequacy when standards are flexible? This question is seldom considered, especially when adequacy is to be appraised formally. While it may be possible to imagine establishing different standards for different students, politically and practically it would be difficult. A formal system would seem to embody the worst features of tracking and self-fulfilling expectations. Informally, of course, many schools do provide different opportunities to different students, based upon their learning characteristics.

In short, while measurement tools are psychometrically reliable and valid, engineering the program of a school system around them would certainly alter education dramatically.

Certifying Adequacy Levels

Can and/or should any level of funding or achievement test results be certified as adequate? Part of the answer is clear: Levels of funding and levels of achievement test results *can* be established. They *have* been established. Moreover, they can be certified as adequate by an appropriate authority. State legislatures, as we have noted, have established minimum foundation amounts. More recently, they have established standards for high school graduation and even grade-to-grade promotion.

Whether they *should* is quite another question. Obviously, an absolute funding level cannot be set for more than a short period. Many forces continuously affect the supply of and demand for the factors of education production, i.e., educational costs will vary. The difficulty has been experienced in school finance over the years. The minimum foundation amounts established in legislation became out of date fairly quickly. Within a few years of the establishment of a particular minimum foundation amount, most school districts would be spending more. Thus formulas soon needed to be revised.

I have discussed the certification of an achievement test level under the last section heading. There is no scientific way to establish the level. Often, commissions have been set up to determine an appropriate level. The result is either an endorsement of a level of reading and arithmetic skill (which seems too limited) or an endorsement of a long list of objectives (which is unmanageable).

The fact that some students graduate who are judged by policymakers, educators, and parents ad inadequately prepared for life roles *may* imply that current funding levels are inadequate. Logically, of course, the cause of this inadequacy may lie anywhere in the educational process, broadly conceived. Thus funds may be inadequate or they may be inefficiently or ineffectively used.

Evidence that funding levels may be inadequate comes from a variety of sources. The strongest evidence is the spread of the school finance reform movement. Federal activities ranging from Title I to the School Finance Project are evidence that some policymakers believe that funding levels in certain areas are inadequate. Some of those who call for minimum competency testing may believe that funding is inadequate. Some parents who remove their children from public schools may do so because they believe that funding is inadequate.

In short, many political and private decisions are consistent with the idea that funding levels are not adequate.

Assuming uniform performance standards, it is surely the case that different students will require different amounts of time and resources to attain them. Different amounts of time and resources cost different amounts of money. Obviously, the higher the standards are set, the greater will be the disparity in time and resources required to bring all students to the standards.

Assuming flexible standards, differences in pupil characteristics must also be recognized. However, a limiting principle for the allocation of resources must be found. Consequently, one may allocate a given amount of resources to all pupils but design, for each class of pupils, an educational opportunity that matches their characteristics.

Financing Adequate Education: Intergovernmental Issues

The question has been asked, should the concept of financing adequate education recognize differences in state/local ability to pay and in state/local tax efforts and other features such as local cost differences and the cost of providing adequate education in urban or rural environments? There are two ways to construct a school budget at the local, state, or federal level: the "usual" way and the way implied by such concepts as educational adequacy.

Usually, school budgets at all governmental levels are set incrementally and with reference to the availability of funds for education. While the amount of money a locality appropriates for education is related to estimates of the cost of school resources, the relationship is loose and depends on the amount of money perceived to be available. Budgets are adjusted incrementally, often on the basis of arbitrary percentage changes. The same is even more true at the state and federal level. The availability of funds, plus state and federal policymakers' willingness to allocate those funds for education, determines the education budget.

The concept of financing adequate education implies a budget that is driven by costing the delivery of adequate education. In other words, an adequate educational opportunity must first be defined and operationalized; only then can the cost be determined. This procedure is seldom if ever followed.

If the procedure were followed, it would surely be found that the cost of producing an adequate education varies, depending upon regional price level differences and differences in economies of scale. The cost of purchasing the same resources would vary from place to place. School size and school district size would affect the cost of producing the same educational opportunity.

The issues of state/local ability to pay and in state/local tax effort go beyond the issue of educational adequacy. There is the clear assumption that adequacy is defined at the state level and that the state is responsible for financing all or a portion of education.

As noted above, the concept of adequate education is cost driven. At present, three levels of government share in financing education. If one assumes that the school district has primary responsibility for financing education, then the state and federal governments have the residual responsibility. If one assumes that the state has primary responsibility, then the local and federal governments have the residual responsibility.

At times, people have sought to distinguish between an adequate education (a basic education) and a more complete education. They have tried to argue, in effect, that the state has a responsibility to provide adequate education for all, while local school districts might be free to finance a more complete education for their own students. While the distinction between "adequate" and "more complete" is very difficult to draw, it is a distinction that would reinforce the idea of inequality of opportunity based upon wealth and location.

The federal government has accepted a residual role for the financing of education, especially for the educationally disadvantaged. The concept of educational adequacy--however defined--is really about the problems of the educationally disadvantaged. The concept of educational adequacy is really a relabeling of a very old problem. Our schools do not serve a certain segment of the population very well. In the 1960s the problem was described as a lack of equal educational opportunity. The hope of some policymakers was to provide equal educational opportunity. Educational adequacy is a redefinition of both the problem and the solution. The solution is not equal educational opportunity but something less. The problem is less the provision of opportunity and more that of the student who fails to measure up. Perceptions of the cause of this failure have shifted. Whatever the labeling, however, the real underlying problem remains: Our schools do not serve some children well. Whether the shift in the perception of the cause of the problem will turn out to be productive remains to be seen. No level of government, except the federal government, has the potential for conducting research which will help to solve the real problem. As the solutions emerge, federal, state, and local governments will need to determine how to share the costs of providing adequate education for all.

FOOTNOTES

1. 411 U.S. 1 (1973).
2. 411 U.S. 1, 35-37.
3. Ibid., p. 45.
4. Ibid., p. 49.
5. Ibid., p. 37.
6. Ibid., pp. 70-71.
7. Ibid., pp. 86-87.
8. Ibid., pp. 89-90.
9. 62 N.J. 473, 303 A.2d 243.
10. 585 P.2d 71 (Wash. Sup. Ct. 1978).
11. W.V. Sup. Ct., Feb. 13, 1979.
12. 408 N.Y.S.2d 505 (Sup. Ct. Nassau County, 1978).
13. See Arthur E. Wise, "The Education Standards Cases: Reforming the Schools Through School Finance Litigation." Paper prepared for the NIE Educational Policy and Organization Program, pp. 10-14.
14. For example, the skills include the ability "to distinguish, interpret, and make use of words, numbers, and other symbols. . . ."
15. Development in every child to his or her capacity of (1) literacy; (2) ability to add, subtract, multiply and divide numbers; (3) knowledge of government to the extent that the child will be equipped as a citizen to make informed choices among persons and issues that affect his own governance; (4) self-knowledge and knowledge of his or her total environment to allow the child to intelligently choose life work--to know his or her options; (5) work-training and advanced academic training as the child may intelligently choose; (6) recreational pursuits; (7) interests in all creative arts; (8) social ethics, both behavioral and abstract, to facilitate compatibility with others in this society.

REFERENCES

Cubberley, Ellwood P. *School Funds and Their Apportionment.* Teachers College, Columbia University, New York, 1905.

Green, Thomas F. *Predicting the Behavior of the Educational System.* Syracuse: Syracuse University Press, 1980.

Strayer, George D., & Haig, Robert M. *The Financing of Education in the State of New York.* New York: Macmillan, 1923.

Wise, Arthur E. *Rich Schools, Poor Schools: The Promise of Equal Educational Opportunity.* Chicago: University of Chicago Press, 1968.

Wise, Arthur E. *Legislated Learning: The Bureaucratization of the American Classroom.* Berkeley: University of California Press, 1979.

Wise, Arthur E., & Darling-Hammond, Linda. Educational Needs: Accounting for School Finance. In K. Forbis Jordan (Ed.), *AEFA Yearbook*, 1981, forthcoming.

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ADEQUATE SCHOOLS AND INADEQUATE EDUCATION: AN ANTHROPOLOGICAL PERSPECTIVE

Harry F. Wolcott

"The important thing about the anthropologist's findings," writes Clifford Geertz, one of anthropology's more articulate spokesmen, "is their complex specificness, their circumstantiality" (1973, p. 23). Whatever issue anthropologists address, they characteristically begin an account and look for illustration through real events or cases bounded in time and circumstance. The anthropologist is a story teller. The effective story should be "specific and circumstantial," but its relevance in a broad context of humankind should also be apparent. The story should help to illustrate and make a point that transcends its modest origins. The case must be particular, but the implications broad.

And so, following that anthropological tradition, I will address the topic of this paper by relating a story. That may seem a roundabout way to address the complex issue of "educational adequacy," but it is a way to bring an anthropological perspective to the problem and to underscore that educational adequacy must ultimately be viewed in terms of some humans' judgments of what constitutes "enough" of the "right kind" of education, either for themselves or, as is more often the case, for others.

It is also in the anthropological tradition to make use of comparison. Anthropologists have come to be regarded as tellers of stories drawn from distant and exotic peoples. I hope the story I tell evidences that same bold relief, particularly in contrasting what "is" with what "might be." Yet my story is drawn neither from my experiences with dramatically different cultures overseas nor from a long personal acquaintance with American education. My story is a case study, or at least a partial one, a life history of one 20-year-old American youth. And the setting is, quite literally, my own backyard. In the community where I live, one can drive five miles to the campus of a major state university and return in the evening to the peace and quiet of an old house nestled on a wooded hillside that seems "miles from nowhere" but is conveniently located within two miles of the nearest supermarket. And that is the setting for this story.

I've chosen this story in order to illustrate (not to prove; the anthropologist's efforts are directed at interpretation, not proof) what I take to be a critical difference between adequacy of schooling and adequacy of education.

It may be necessary to note and to underscore that anthropologists find it useful to distinguish between schooling and education (cf. Hansen, 1979; Harrington, 1979; Wallace, 1961). Schooling refers to the learning that is done in school; education, a more encompassing term, refers to all systematic and deliberate efforts to transmit skills, understandings, and behaviors necessary within a particular group. My story has been chosen to illustrate the contrast between schooling and education.

My interpretation of the story, and thus my purpose in telling it, is to present a case of adequate schooling but inadequate education. On the broad issue of educational adequacy, my position is that American schools do an adequate job of schooling. I would be willing to describe it as a remarkable job, as long as we recognize that schooling "works" for most young people but not for all. The matter of "education," viewed as an issue of national concern sufficiently encompassing to reach youth who are out of school as well as in it, is quite another thing. I doubt that we could ever reach complete agreement on what constitutes "adequate" education. But that need not deter us from trying to come to grips with the more immediate problems related to "inadequate" education. And to do that, we need to examine how (or perhaps even whether) the educative efforts of the schools are augmented by other "systematic and deliberate efforts" within our society. Especially as it pertains to those youth for whom formal schooling does not "work," the spectre of educational inadequacy looms large.

The story of "Brad" that I am going to present is a case in which, from mainstream society's point of view, the issue of educational inadequacy appears in sufficiently bold relief that lack of consensus about educational adequacy is only tangential. My concern in this paper is with the case itself; my purpose is to illustrate, not to pontificate. What can be done by way of remedy is not at all clear, but it is clearly beyond the scope of the paper. But I do intend to draw attention away from the schools to ask who else does share, or might share, responsibility in the comprehensive task of "educating" America's youth.

I do not for a minute believe that the resolution of problems of educational inadequacy rests with putting the federal government in the position of distinguishing adequate schools from inadequate ones or of introducing equalization formulas that promise to resolve inadequacy by redistributing dollars. My position is that, by and large, we should leave the schools alone to do what they already do well. We should direct our attention instead to what might be done for those youth for whom school per se is not the critical issue.

Let me turn now to my "case," an abbreviated life history of one "beyond-school" American youth who, like each of us, has "figured things out" but, from society's point of view, seems to have figured out some things "wrong."

Adequate Schools and Inadequate Education: The Life History of a Sneaky Kid

"I guess if you're going to be here, I need to know something about who you are, where you're from, and what kind of trouble you are in," I said to the lad, trying to look him in the eye and to make my opening remark sound reasonable and social rather than like a police interrogation. It wasn't much of an opener, but it proved adequate for the beginning of a dialogue that has lasted over a year and a half. Brad (a pseudonym, although as he himself noted, referring to him by his real name wouldn't really matter, since "no one knows who I am anyway") responded with his full name, the fact that his parents had "split up" and his mother was remarried and lived in southern California, the current address of his father, and that he was not at present in any trouble because he wasn't "that stupid." Then he quickly added that he had spent time in the state's correctional facility for boys, although his being sent there (does this sound familiar?) wasn't really his "fault."

It was not our meeting itself that was a surprise as much as the fact that Brad had already been living on my property for six weeks. In that time he had managed to build a 10' X 12' log cabin with walls made of small trees he had cut and covered with paneling he had carried in for a roof. A couple of weeks earlier, I had spotted an area where someone had recently camped, but I thought it probably Boy Scouts enjoying a night of bivouac en route to hiking a nearby ridge that afforded a fine view, a popular day hike for townspeople and occasional campout spot for kids. I also found a saw, but in my efforts to make sense of the evidence at hand, I suspected it had been left by a surveying party. Brad later recounted how he had been watching me at the time and admitted cursing to himself for being careless in leaving his tools about.

I did not realize I now had both a new cabin and a new tenant until a neighbor telephoned a week later to report that his 8-year-old son claimed not only to have seen but to have spoken to "a hobo" while wandering through my woods. The "hobo" turned out to be the then 19-year-old youth, of medium build and slightly stoop-shouldered, standing opposite me.

Taken in big chunks, the pieces of Brad's story seemed to fall together pretty well, although, over time, elaborations of detail about some aspect of his life have raised questions of detail about others. There are certainly more details than need be repeated here, and I must echo Geertz's reflection that the more deeply I get into the facts and interpretation of Brad's story, the more I suspect that I am "not quite getting it right" (Geertz, 1973, p. 29).

On the surface, Brad's strategy appears admirable, heroic, even romantic. Faced with jobs he did not want to do (he abhors dishwashing, yet that seems to be the only work he is sure he can get, because "those jobs are always open") and expenses he could not afford (renting an apartment, buying and operating a motorcycle) he saw, as an alternative to earning enough-to-keep-up, the option of completely changing his life-style and reducing his cash outlay to the minimum. What he could not afford, he would try to do without. He had never done any of the things he now set out to do. He had never lived in the woods (though he had gone camping), he had never built a log house (though he had occasionally helped his father in construction), he had never thought about his personal inventory of essential items. He decided to locate in a wooded area with which he was vaguely familiar, not far from a section of the city where he had once lived as a child. He went so deep into the woods from the eastern point at which he entered them that he did not realize how close he'd come to its "other side" at my house and another main road around the west side of the ridge. But he did realize he had to be "near town"--he needed stores and (surely he considered this) he needed to be where, one way or another, he could pick up the things essential to his anticipated life-style. He did not need much, but what he did need--a few tools, some lumber, a sleeping bag, a stove, cooking utensils, flashlights and lanterns, pants and shoes, containers for carrying and storing water--he scrounged, stole, or, occasionally and reluctantly, purchased.

Brad evidences few of the qualities that would earn him the title of "outdoorsman." His camp lacks the outdoorsman's compulsive orderliness. He's terrible at tying knots. He cuts trees unnecessarily and turns his own trails into slippery troughs of mud. In spite of occasional romantic references to himself as "Jungle Boy," he is basically a city boy making whatever accommodation he must to survive inexpensively. He gets his fuel and food from town; he is dependent on the city even though he cannot afford to live in it. If his menu has become more like that of the woodsman (potatoes, onions, pancakes, melted cheese sandwiches, eggs, soup, canned tuna, powdered milk and powdered orange juice) it is because he has realized that these are the items that stretch $70 worth of food stamps into a month's ration of food. He washes and dries his clothes in coin-operated machines (at night, at apartment house complexes, because they are nearby and cheaper). He plays a battery-operated radio almost constantly, and recently has become even more cabin-bound watching a small battery-operated TV set purchased for him by his mother during a brief visit, their first in over two years.

It is not Brad's wont to take leisurely walks in the woods, spend time enjoying sunsets, or listen to bird-calls. He has brought what he can of his urban environment with him. Though he borders on being anti-social, he calculatingly mismanages his purchases so that on many days he "has to" ride about two and one-half miles each way to his favorite store to get a pack of cigarettes and perhaps buy a can of beer or "smoke a joint" in the park. Town is the only direction he goes. Yet he returns to his cabin each evening, usually before darkness makes the trip hazardous. The security of having a place all his own lends stability to his life. He is proud of what he has created, even though he acknowledges that, were he starting over, his homestead would be "bigger and better in every way."

In brief glimpses, other people's lives often appear idyllic. Brad's "Robinson Crusoe" life has many appealing qualities about it. He seems to have freed himself of the trappings of the Establishment. He has watched his father work hard, dream even harder, and seem, in Brad's opinion, to get nowhere for it. He is acquiring a sense of what, for him, are the "basics" in life. From outside, he finds the "system" curiously roundabout and unappealing, a system that requires him to work all day at a job he hates in order to earn barely enough money to provide transportation to and from work and money for the rent of some cheap place where he would rather not live.

I have found it hard to argue on behalf of what hard work will get him, and I hear Brad's argument quite well: Because he has no skill or experience, he will probably have to do work that is harder, or at least more menial, than most jobs today. He can be a ferocious worker, but I suspect that he nonetheless has some anxieties that he might not be able to "keep up" on jobs requiring constant hard physical labor. Nor does he relish the thought of having to show up every day for hard work he might be willing to do on an irregular but not daily basis.

A glimpse into Brad's daily life would not dispel the romantic view. He gets up when he wants to and goes to bed when he wants to, although, with winter's coldness and darkness and the perennial wetness of the northwest, he spends so much time in his sleeping bag that getting to sleep becomes a terrible problem that keeps compounding itself. Subject only to the fact that he usually has to fetch water in order to prepare a meal and wash utensils left dirty from the previous one, he can eat when he chooses and cook or not as mood and a rather sparse cupboard dictate. Food and cigarette purchases dominate his schedule of trips to town. A trip to the store, or to see about food stamps (in effect he has no address, so he picks up his stamps in person), or trips for other supplies (gasoline or a new tire for the motor bike, fuel for the stove, hardware items for the cabin) occur at least once or twice a week. Dirty clothes have to be taken to be washed. And if there is no needed trip, he is free to decide—quite consciously, though rather impulsively, I think—how to spend the day. Though the cabin is sometimes untidy and dishes are seldom washed before they are to be used again, Brad keeps his person and his clothes clean. Teeth get brushed, and he rarely goes to town without "showering" or at least washing his face and hair. In warm weather he underscores the nymphlike nature of his existence by remaining almost or totally unclad in the seclusion of his immediate cabin area, though he is, I think, extremely modest in public settings. His preference for privacy was highlighted by his acute dislike for such institutional requirements as showering "on procedures" at Reform School, and such experience now makes options like joining the armed services something he insists he would only do if he had to. Brad is, at first glance, a free spirit. He regards himself that way, too: "I do what I want."

But just as there is no absolute set of things to be learned (cf. Wallace, 1961, p. 38), there is no absolute set of things to be wanted or ways to fill one's days and dreams. What people learn or want to do or dream about reflects their culture. Brad has a very good sense of some things in his "culture" that he feels he can do without, even including—up to a point—not being around a lot of people or doing meaningless work. But he has been weaned on technological innovations and raised in a society where people seem, to him at least, to be able to have whatever they want. Brad sees himself living literally as well as figuratively at the edge of his society. Food stamps, he once declared, are "society's way of paying me to drop out."

Brad needs to cook. An open fire is slow and cumbersome and of no use inside a cabin on a cold day. One needs a cook stove. And fuel. And then a better stove. Cold water is all right for washing hands, but it's a severe way to wash one's hair or torso, especially when washing out-of-doors with the wind blowing. One needs a bigger pan for heating water, and more fuel, and soap, and shampoo, and a towel. A new razor. A mirror. A bigger mirror.

One needs something to look at and listen to. Magazines are easy to find, but how about a radio? Flashlight batteries are expensive for continual radio listening; a radio operated by an automobile battery would be a better source—and could power a better radio. An automobile battery needs to be recharged. Carrying a battery by bicycle to a service station is cumbersome, and constantly having to charge a battery is expensive. As well as access to a power supply (in my carport), one needs a battery charger. No, this one is rated too low; a bigger one is needed. Luckily not a harsh winter, but a rainy one. The dirt floor gets muddy; a wood floor would be better. The roof leaks; a heavier grade of plywood is essential. The sleeping bag rips where it got wet; a replacement is necessary. Shoes wear out from constant use on the trails; clothes get torn or simply wear out. Flashlights and batteries wear out. Cigarettes (or tobacco), matches, eggs, bread, Tang, Crisco, pancake flour, syrup--supplies get low.

Transportation is a perennial problem. Before he took to the woods, Brad had a motorcycle. He says he saved almost every penny from one job lasting several months so he could buy the motorcycle (some things are just too big to steal or more than you might once have hoped your parents would give you). But a spate of traffic violations (three citations in a row for the same set of offenses, including operating without insurance) resulted in a suspension of his driver's license and loss of the motorcycle. Brad returned to bicycling but dreamt of the day when he could at least put a motor on the bike. He located the motor and found a way to pay for it by "contracting" with me to dig--by hand--a new water line on which I was then seeking bids from back-hoe operators. Working at his own speed over a period of several weeks, he dug a neat 650 foot ditch and then helped me lay and cover the new line. When he received his pay, he had enough money to buy the motor.

Now an accident with the motorbike. The bicycle itself is wrecked. No money to buy a new one. Brad "hypes" himself up and sets out to find a replacement. Buy one? "When they're so easy to get? No way!"

Here is a good place to let Brad relay some thoughts about his life and how he has tried to make sense of, and come to grips with, the world about him.

'Putting It All Together the Best Way You Can'

Ideally, at least, the anthropologist pursuing a "life history" approach lets informants tell their own stories in their own words. There should be what one anthropologist described as "a high ratio of information to explanation" in a life story; sometimes there is no explanation or interpretation at all (cf. classics such as Leo Simmons's Sun Chief, Oscar Lewis's Children of Sanchez).

Time, space, and purpose require me to proceed more directly here. I have worked with a heavy hand in reorganizing material and selecting the most cogent excerpts from months of conversations and observations and several hours of formal interviews that Brad volunteered.

(I have been careful to observe the few conditions Brad imposed on my use of the information; he, in turn, earned money as a consultant and this paper has been informed by his reactions. That is not to imply that he is entirely satisfied with my portrayal or my interpretation; but he is satisfied that what I have reported is accurate. If only to please me, he even commented that he hopes that this account might "help people understand.")

In the previous section, I briefly outlined Brad's life-style and background. Here I want to focus on those parts of his story that illustrate the critical point of this paper, the distinction between adequate schooling and inadequate education. I will start with the latter topic by portraying how Brad's world view shows considerable divergence from what we might consider to be a "socially desirable" one.

I have dwelt more on social concerns than on personal or psychological ones. How Brad perceives himself in relation to his society is of paramount concern here. He has, or believes he has, some personal hang-ups, focused largely on his acceptance of his body and a preoccupation with sexual fantasy as yet unfulfilled, "Portnoy's Complaint" personified. He can be stubborn and recalcitrant, traits that have probably caused problems with authority during his life. I did not have any information about his IQ, his verbal or his performance capacity on standardized tests, or precisely what grade he had completed in school when I began systematically to collect life history data from him. By his own account he had often been "slow" or "behind the rest of the class." He can read, but he falters on the "big words." He can write, but his spelling and punctuation are not very good. He has trouble recalling number sequences and basic arithmetic facts (lack of practice, he insists). In at least one school he reports he was "in an EH [educationally handicapped] class with the other stonies" and recalls that he felt more comfortable there than in regular classrooms. But, for practical purposes, he can read, he can write, he can do simple arithmetic. The only book he acquired for his cabin is a dictionary. That alone is incredible; even more incredibly, he occasionally labors through it to locate a word--no easy task when even the alphabet must be recited in order to find an entry.

Measures of IQ or grade-level achievement do not matter any more. Brad is well enough aware of his capacities and limitations. He is not destined to be a brain surgeon or a jet pilot, but if my luck ever changed and I was the one who was "down and out," Brad is the kind of person who could show me how to survive. How far he was once "below average" or "behind" his classmates is now (as it was then) only academic. Now he is among us. To some extent, he's also one of us. We could rest better if he were more so. Not intellectually, but socially.

'In the Chute'

A speaker at the American Correctional Association meetings in 1981 was reported in the national press to have used the phrase "in the chute" to describe individuals whose lives seem headed for prison even though they have not yet arrived there: "People who are in the chute, so to speak, and heading toward us, are beginning that movement down in infancy." Brad is not yet "in the chute." It is not inevitable that he end up in prison. It does not have to happen. But it could. Excerpts from his own brief life synopsis suggest how things point that way. Here he recalls a chain of events that started at age 10 with his parents' divorce:

On the Loose. After my parents got divorced, I was living with my dad. I had quite a bit of freedom. My dad wasn't around. If I didn't want to go to school, I just didn't go. Everbody who knows me now says, "That guy had the world's record for ditching school." My dad was at work all day and there was no one to watch me. I was pretty wild. My dad took me to a counseling center at the University; they told me I was "winning the battles but losing the war."

After my dad got remarried, I had no freedom any more--I had a new mother to watch me. I got mad at her a couple of times, so I moved in with her parents. I went to seventh grade for awhile and got pretty good grades. Then I went to southern California to visit my mother and when my dad said he'd have to "make some arrangements" before I could return, I just stayed there. But I got into a hassle with my stepdad, and I ditched some classes, and suddenly I was on a bus back to Oregon.

My father had separated again and I moved into some little apartment with him. He wanted me to go to another school, but I said, "Forget it man, I'm not going to go to another school. I'm tired of school." So I'd just lay around the house, stay up all night, sleep all day.

Finally I told my mom I'd be a "good boy," and she let me move back to southern California. But I got in another hassle with my stepdad. I ran out of the house and stayed with some friends for a few months, but then the police got in a hassle with me and they said I'd have to go back with my dad or they were going to send me to a correctional institution. The next thing you know, I was back on the bus.

Getting Busted. By then my dad had remarried again. I wasn't ready for another family. I stayed about two days, then I left. I figured any place was better than living there. But they got pissed at me because I kept coming back for food [breaking into the house to do it], so they called the cops on me. Running away from them, I broke my foot and went to the hospital. Then I got sent to Reform School. They had a technical charge against me [contraband], but I think the real reason was that I didn't have any place to go. I was in Reform School for eight months.

Second-Rate Jobs and Second-Rate Apartments. I finally played their "baby game" and got out of Reform School. Then they sent me to a Halfway House in Portland. I got a job, made some money, got a motorcycle, moved to another place, then that job ended. Then I came back and worked for my dad awhile, but there wasn't nothing to do, and I got in some family hassles, so I got a few jobs and lived in some cheap apartments.

For awhile I was a bum down at the Mission. I'd get something to eat, then I'd go sleep under a truck. My sleeping bag was all I had. I knew winter was coming and I'd have to do something. I saw a guy I knew and he said, "Hey, I've got a place if you'd like to crash out until you get something going." So I went there and got a job for about four months washing dishes. Then my mom came up from California to visit and found me an apartment. God, how I hated that place, with people right on the other side of those thin walls who know you're all alone and never have any visitors or anything. I quit washing dishes because they cut me down to such low hours I wasn't making any money anyway. So I just hibernated for the winter.

A New Life. When the rent ran out, I picked up my sleeping bag and the stuff I had and headed for the hills at the edge of town. I found a little place that looked like no one had been there for awhile, and I set up a tarp for a shelter. I decided to take my time and build a place for myself, because I wasn't doing anything anyway. I just kept working on it. I've been here a year and a half now. I've done some odd jobs, but mostly I live on food stamps.

I used to think about doing something like this when I lived in Portland. I even tried staying out in the woods a couple of times, but I didn't know exactly what to do. I knew I needed a place to live. As I went along I just figured out what I would need. All I knew was that I needed some place to get out of the wind and some place to keep dry. I put up four posts and started dragging logs around till the walls were built. It took about a week to get the walls. Then the roof. I slept in a wet sleeping bag for a couple of nights, 'cause I didn't have a roof. I had a dirt floor for a long time but I knew there would have to be no dirt anywhere. I knew I'd have to have a floor and a roof.

'Picking Up' What Was Needed. I got around town quite a bit. Any place where there might be something, I'd take a look. If I found anything that I needed, I'd pick it up and take it home. I just started a collection: sleeping bag, radio, plywood for the roof, windows, a stove, lanterns, tools, clothes, water containers, boots. If you took away everything that's stolen, there wouldn't be much left here. Like the saw. I just walked into a store, grabbed it, put a piece of cloth around it to hide it, and walked out.

A couple of times I'd just put food in my backpack, and if anybody in the store saw me, I'd wave at them and keep walking. I didn't have much to lose, I figured. The closest I ever got to being stopped, I had two six-packs of beer and some cooked chicken. The guy in the store had seen me there before. I just waved, but he said, "Stop right there." I jumped over the rail in the store. I ran out and grabbed my bike, but he was right behind me. I knew the only thing I could do was drop the merchandise and get out of there with my skin and my bike, and that's what I did. He didn't chase me; he just picked up the bag and shook his head at me.

The Bicycle Thief. We lived in the country for about three years while I was growing up. Moving back into town was kinda different. I went pretty wild after moving to town. Me and another kid did a lot of crazy stuff, getting into places and taking things. I'd stay out all night just looking in people's garages. I'd get lots of stuff. My room had all kinds of junk in it. That's when I was living with my dad, and he didn't really notice. He still has an electric pencil sharpener I stole out of a church. He never knew where I got it.

Instead of going to school, I'd stay home and work on bikes. We used to steal bikes all the time. We'd get cool frames and put all the hot parts on them. I've stolen lots of bikes--maybe around 50. But I probably shouldn't have never stolen about half of them, they were such junk. I just needed them for transportation.

Being Sneaky. I've always been kind of sneaky, I guess. That's just the way I am. I can't say why. My mom says that when I was a small kid I was always doing something sneaky. Not always--but I could be that way. I guess I'm still that way, but it's not exactly the same. It's just the way you think about things.

I don't like to be sneaky about something I could get in trouble for. But I like to walk quietly so no one will see me. But I could get in trouble for something like sneaking in somebody's backyard and taking a roto-tiller. I did that once. I sold the engine.

I guess being sneaky means I always try to get away with something. There doesn't have to be any big reason. I used to tell the kid I was hanging around with, "I don't steal stuff because I need it. I just like to do it for some excitement."

Last year I went "jockey-boxing" with some guys who hang around at the park. That's when you get into people's glove compartments. It was a pretty dead night. One guy wanted a car stereo. He had his tools and everything. So we all took off on bicycles, five of us. I was sort of tagging along and watching them--I didn't really do it. They got into a couple of cars and got a flashlight and a vacuum cleaner and a couple of little things. You go to apartment houses where there's lots of cars and you find the unlocked ones and everybody grabs a car and jumps in and starts scrounging through.

I've gone through glove compartments before and I probably will again some day if I see a car sitting somewhere just abandoned. But I'm not into it for fun anymore, and it doesn't pay unless you do a lot. Mostly young guys do it.

I'm still mostly the same, though. I'll take a roll of tape or something from the supermarket. Just stick it in my pants. Or if I saw a knife that was easy to take. That's about it. Oh, I sneak into some nearby apartments to wash my clothes. I pay for the machines, but they are really for the tenants, not for me. And I'll sneak through the woods with a piece of plywood for the cabin.

I Don't Have to Steal, But... I'm not what you'd call a super thief, but I will steal. A super thief makes his living at it. I just get by with it. I don't have to steal, but it sure makes life a hell of a lot easier. I've always known people who steal stuff. It's no big deal. If you really want something, you have to go around looking for it. I guess I could teach you how to break into your neighbor's house, if you want to. There's lots of ways--just look for a way to get in. It's not that hard to do.

I can be honest. Being honest means that you don't do anything to people that you don't know. I don't like to totally screw somebody. But I'll screw 'em a little bit. You could walk into somebody's garage and take everything they have--maybe $5000 worth of stuff. Or you could just walk in and grab a chain saw. It's not my main hobby to go around looking for stuff to steal. I might see something, but I wouldn't go out of my way for it.

Breaking and Entering. I remember busting into my second-grade classroom. I went back to the school grounds on the weekend with another kid I knew. We were just looking around outside and I said, "Hey, look at that fire escape door--you could pull it open with a knife." We pulled it open and I went in and I took some money and three or four little cars and a couple of pens. There wasn't anything of value, but the guy with me stocked up on all the pens he could find. We got in trouble for it. That was the first time I broke in anywhere. I don't know why I did it. Maybe too many television shows. I just did it because I could see that you could do it.

And I've gotten into churches and stores. I've broken into apartment house recreation rooms alot, crawling through the windows. And I've broken into a house before.

I went into one house through the garage door, got inside and scrounged around the whole house. God, there was so much stuff in that house. I munched a cake, took some liquor, took some cameras. Another time I thought there was nobody home at one house, and I went around to the bathroom window, punched in the screen, and made a really good jump to the inside. I walked in the house real quietly, and then I heard somebody walk out the front door, so I split. I didn't have nothin' then; I was looking for anything I could find. I just wanted to go scrounging through drawers to find some money.

If I ever needed something that bad again and it was total chaos [i.e., desperation], I could do it, and I would. But it's not my way of life.

Inching Closer to the Chute. Just before I came up here, I kept having it on my mind that I needed some money and could rob a store. It seemed like a pretty easy way to get some cash, but I guess it wasn't a very good idea. I had a B-B gun. I could have walked in there like a little Mafia, shot the gun a few times, and said, "If you don't want those in your face, better give me the money." There were a couple of stores I was thinking of doing it to.

I was standing outside one store for about two hours. I just kept thinking about going in there. All of a sudden this cop pulls into the parking lot and kinda checks me out. I thought, "Oh, fuck, if that cop came over here and searched me and found this gun, I'd be shit." So as soon as he split, I left. And after thinking about it for so long.

But another time, I really did it. I went into one of those little fast food stores. I had this hood over my head with a little mouth hole. I said to the clerk, "Open the register." And she said, "What!" Are you serious?" I knew she wasn't going to open it, and she knew I wasn't about to shoot her. So then I started pushing all the buttons on the cash register, but I didn't know which ones to push. And she came up and pulled the key. Then someone pulled up in front of the store and the signal bell went 'ding, ding.' So I booked.

Another time I thought about going into a store and telling this cashier just to grab the whole cash tray and pull it out and hand it to me, and I was just going to walk. Or else I was going to wait till near closing time when they go by with a full tray of twenty dollar bills and grab it. Or else go into a restaurant right after closing time, like on a Saturday night or something, and just take the whole till.

If I was ever that hurting, I could probably do it if I had to. It's still a possibility, and it would sure be nice to have some cash. But you wouldn't get much from a little store anyway. I'd be more likely just to walk in and grab a case of beer.

'I'm Not Going to Get Caught.' I can't straighten out my old bike after that little accident I had the other day and that means I need another bike. I'll try to find one to steal--that's the easiest way to get one. I should be able to find one for free, and very soon, instead of having to work and spend all that money, money that would be better off spent other places, like reinstating my driver's license.

The way I do it, I go out in nice neighborhoods and walk around on people's streets and look for open garages, like maybe they just went to the store or to work and didn't close the door. I walk on streets that aren't main streets. Someone might spot me looking around at all those bikes, but even if somebody says something, they can't do anything to you. The cops might come up and question me, but nothing could happen.

Now, if I was caught on a hot bike...but that's almost impossible. If I was caught, they'd probably take me downtown and I'd sit there awhile until I went to court, and who knows what they'd do. Maybe give me six months. They'd keep me right there at the jail. But it's worth the risk, because I'm not going to get caught. I did it too many times. I know it's easy.

Even if I worked, the only thing I'd be able to buy is an old Schwinn 10-speed. The bike I'm going to get is going to be brand new. Maybe a Peugeot or a Raleigh. A $400 bike at least. It might not be brand new. But if I could find a way, I'd get a $600 bike, the best one I could find. And I'll do whatever I have to, so that no one will recognize it.

["What would your mother think about you stealing a bike?" I asked. "That it's dumb; that it's smart?" "Neither," he replied. "She'd just think that I must have needed it. She wouldn't say anything. She doesn't lecture me about things like that. But she used to cut out everything they printed in the paper about 'pot' and put it on my walls and she'd talk about brain damage."]

Home Is the Hunter. I think this will be the last "bike hunting" trip I'll ever go on...probably. I said it might be the last one. I could probably do one more. When I get to be 24 or 25, I doubt that I'll be walking around looking for bikes. But, if I saw a nice bike and I was in bad shape and really needed it, I'd get it. If I didn't need it, I'm not going to steal anything I don't need. Unless it's just sitting there and I can't help it, it's so easy. I'm not really corrupt, but I'm not 'innocent' any more. I can be trusted, to some people. ["Can I trust you?" I asked. "Yeah. Pretty much. I dunno. When it comes to small stuff...."]

Growing Up. When I was growing up, I was always doing something, but it wasn't that bad. My parents never did take any privileges away or give me another chance. Anytime I did something in California, my mother and step-dad just said, "Back to Oregon." They didn't threaten; they just did it. My mom could have figured out something better than sending me back to Oregon all the time. She could have taken away privileges, or made me do some work around the house. And in Oregon, my dad could have figured a better way than throwing me out of the house. Bad times for me were getting in a hassle with my parents. Then I wouldn't have no place to go, no money or nothin'. That happened with all of them at different times.

[By my count, including a time when Brad lived with his mother at her sister's home, and when he lived with one step-mother's parents for awhile, he was raised in six families. That fact seemed not particularly disconcerting to him, but the abruptness of being dispatched among them was.]

> The last time I got kicked out in California, I moved back to Oregon, but I only stayed in the house a couple of days. My step-mom and my dad started telling me I wasn't going to smoke pot any more, I would have to go to school, I was going to have to stop smoking cigarettes, and other shit. And I didn't like anything about that fucking house. Another reason is that my dad said I couldn't have a motorcycle. So I split. I just hung around town, sleeping anywhere I could find.
>
> If I had kids, I would just be a closer family. I would be with them more and show that you love them. You could talk to your kids more. And if they do something wrong, you don't go crazy and lose your temper or something.
>
> Hiding Out From Life. So now I've got this cabin fixed up and it really works good for me. This is better than any apartment I've ever had.
>
> I've earned some money at odd jobs since I came here, but mostly I live on food stamps. I just knew that if I wasn't working and was out of money, food stamps were there. I've been doing it for quite awhile. When I was down at the Mission I had food stamps. A guy that I worked with once told me, all I had to do was go down there and tell 'em you're broke, that's what it's there for. I haven't really tried looking for a job. Food stamps are a lot easier. And I'd just be taking a job away from someone who needs it more. Now that I've figured out the kinds of things to buy, I can just about get by each month on $70 for food. If I couldn't get food stamps, I'd get a job.
>
> I guess by living up here I'm sorta hiding out from life. At least I'm hiding from the life I had before I came up here. That's for sure. The life of a dumpy apartment and a cut-rate job. This is a different way of life.
>
> This place works a lot for me. What I would have been doing for the last year and a half in town compared to a year and a half up here, this is just working for me. Like, all the work I've done here, none of it has gone for some landlord's pocketbook. I should be able to stay here until I get a good job.
>
> I like living like this. I think I'd like to be able to know how to live, away from electricity and all that.

The romantic "Robinson Crusoe" aspects of a young man carving out a life in the wilderness, what his mother describes to her friends in southern California as a son who "lives on a mountain top in Oregon," is diminished by this fuller account of Brad's life-style. Brad would work if he "had to," but he's found that at least for awhile—measured perhaps in years rather than weeks—he doesn't have to. If he is not hiding out from life, he has at least broken out of what he sees as a pointless cycle of holding a cut-rate job in order to live in a dumpy apartment and pay for the necessities (rent, clothes, transportation) that would go with holding a job. He deliberately keeps a low profile that serves double duty. He has a strong aversion to being "looked at" in settings where he feels he cannot "blend in," and his somewhat remote cabin has become his fortress; now he expresses concern that he himself might be "ripped off." On sunny weekends, when there is a likelihood of hikers passing through the woods, he tends to stay near the cabin with an eye to protecting his motley but nonetheless precious collection of tools, cooking gear, bicycles and parts, radio, and battery-operated television. He sometimes locks the cabin (though it could be easily broken into) and always locks his bike when in town if he is going to be any distance from it. If he is ripped off, he will hardly call the police to help recover his stolen items; few of them were his in the first place.

Technically he is not in trouble with the law. To some extent the law exerts a constraining influence on him; he does not want to "get caught," and that circumscribes the type of illicit activities in which he is willing to engage. But the law menaces him as a down-and-outer, and as a relatively powerless kid, a kid without resources. The law works on a cash basis. Brad got a motor for his bicycle in order to circumvent his earlier problems with the motorcycle, only to discover via a traffic violation of over $300 (reduced to about $90 with the conventional plea, "Guilty, with explanation") that a bicycle with a motor on it is deemed a motorized vehicle and that he is required by law to have a valid operator's license (his is still suspended), a license for the vehicle, and insurance. To come up with enough money to operate legally, he will have to earn about $175 and then meet high semiannual insurance premiums. In his way of thinking, all that gets him "nothing"; he'd rather take his chances. Traffic fines have proven a major budget item for him. He argues that he won't get caught, but since he already has been caught, he now has to add, "Again."

Margaret Mead once observed (cf. MacNeil and Glover, 1959) that most Americans would agree the "worst" thing a child can do is to steal. As a "sneaky kid," Brad has been stealing stuff--little stuff, mostly--for over a dozen of his twenty years. He is at a point where he will have to decide whether to dismiss his stealing as a phase of growing up and doing "crazy things" (jockey-boxing, breaking into the classroom on weekends, petty shoplifting, stealing bicycles) or to step into the "chute" by joining the big leagues. With mask and gun, he has already faced the chute head-on. Someone called his bluff. That event might have ended otherwise. With the occurrence of repeated traffic fines, it could even be the courts themselves that drive him to a desperate need for quick cash.

World View: 'Getting My Life Together'

Although other social scientists who use the terms "socialization" and "enculturation" often use them interchangeably, those anthropologists interested in education as cultural process have made a valuable contribution in suggesting that the terms are better used to distinguish between complementary social behaviors. Anthropologist Philip Leis, for example, contrasts socialization, the process of learning how to behave in a particular society, with enculturation, the process of acquiring a world view appropriate for a member of that group (Leis, 1972, p. 5).

The autobiographical material presented so far deals essentially with socialization. From mainstream society's point of view, Brad has not been adequately socialized; he does not seem to behave "properly" on certain critical dimensions (e.g., respect for other people's property, earning his way), and therefore his almost exemplary behavior on other dimensions (lack of pretense, cleanliness, courtesy, resourcefulness, and, particularly, self-reliance) are apt to be overlooked. Again from mainstream society's point of view, Brad's socialization is not only "different," it is inadequate. He is not a social asset. He could end up badly.

Yet in both word and deed (and here is the advantage of knowing him over a year and a half, rather than depending solely on spoken interviews) Brad repeatedly demonstrates how he is more an "insider" than an outsider to the society that he feels is paying him to drop out. In numerous ways he reveals a personal world view that is not so far out of step with his society after all. Some "good" has crept in with the "bad." He may be adrift, but he is not socially disoriented. The odds may be against him, but they are not stacked. This is not a "minority" kid fighting for his life in the ghetto, nor a physically or emotionally handicapped kid, nor a dumb kid, nor an unattractive kid, nor a kid who has never known love and security. Indeed, somewhere along the way he learned to value security so highly that his pursuit of it provides him with a strong sense of purpose. His parents both work and, judging from statements I have personally heard them make, take pride in their work. If they are not rich, they are at least comfortable. Perhaps from Brad's point of view they have paid too high a price for what they have or have given up too much to attain it, but they are the embodiment of the amorphous American working class. As Brad says, "My dad's worked all his life so he can sit at a desk and not hold a screwdriver any more. But he just works! He never seems to have any fun."

Absolutely no one, including anthropologists who get promoted for trying, ever learns the totality of a culture; conversely, no one, including the most marginal or socially isolated of humans, ever escapes the deep and lasting imprint of the macro- and micro-cultural systems in which he or she is raised (cf. Wolcott, 1982). Evidence of that cultural imprinting abounds in Brad's words and actions. I have combed his words for the excerpts below, excerpts that provide evidence that Brad's enculturation would give rise to a glimmer of hope so long as he does not "get caught doing something stupid" or in some unexpected way get revisited by his past.

If he does make it, however, it will be largely due to luck and to the strength of cultural imprinting and a sense of values instilled at some time in that same past. Let me make the point here to which I will return in the conclusion of this paper: There is at present no constructive force working on his behalf to guide, direct, encourage, or assist him. He has no sponsor, no support network. The agencies poised for action on his behalf will take interest in him only if he makes a mistake and gets caught. The only social agency that exerts a positive educative influence in his life at present is an indirect consequence from the mixed blessing of food stamps that keep him from

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having to steal food but also make it unnecessary for him to work. He has learned that he must spend them wisely in order to get through the month.

The following excerpts, selected topically, suggest how much of mainstream culture Brad has already acquired, but they point as well to loose strands that will have to be woven together to bind him more securely to the Establishment.

> A Job--That's All That Makes You Middle Class. A job is all that makes you middle class. If I'm going to have a job, I've got to have a bike that works, I've got to have a roof, I've got to have my clothes washed. And I'd probably need rain gear, too, because my bike engine doesn't work in the rain. You can't go into any job in clothes that look like you just came out of a mud hut.
>
> Even though I've worked for awhile at lots of different things, I guess you could say that I've never really held a job. I've worked for my dad while--altogether about a year, off and on. I helped him wire houses and do other things in light construction. I scraped paint for awhile for one company. I worked for a graveyard for about eight months, for a plumber awhile, and I planted trees for awhile.
>
> I wouldn't want to have to put up with a lot of people on a job that didn't make me much money. Like at a check-out counter--that's too many people. I don't want to be in front of that many people. I don't want to be a known part of the community. I don't mind having a job, but I don't like a job where everyone sees you do it. Working with a small crew would be best--the same gang every day. And I'd like a job where I'm out and moving. Anything that's not cleaning up after somebody else, and where you're not locked up and doing the same thing over and over. And where you can use your head a little, as well as your back.
>
> My mother told me, "If you had a little job right now, you'd be in heaven." Yeah, some cash wouldn't hurt, but then I'd have to subtract the $70 I wouldn't get in food stamps, and there might not be a whole hell of a lot left. So I'm living in the hills and I'm not workin'. No car, either. So no girl friend right now. No big deal.
>
> If I did have a job, the hardest thing about it would be showing up on time and getting home. Living out here makes a long way to go for any job I might get.
>
> If you get your life together, it means you don't have to worry so much. You have a little more security. That's what everybody wants: money. A regular job. A car. You can't have your life together without those two things.
>
> My life is far better than it was. I've got a place to live and no big problems or worries. I don't worry about where I'm going to sleep or about food. I've got a bike. Got some pot--my home grown plants are enough now, so I don't have to worry about it, even though

it's not very high class. But you've got to have a car to get to work in the morning and to get home. I can go on living this way, but I can't have a car if I'm going to do it.

Sometimes my mom sends me clothes, or shampoo, or stuff like that. But if I had a job, I wouldn't need that. She'll help me with a car someday, if she ever thinks I'm financially responsible.

Building My Own Life. I'm not in a big hurry with my life. If I can't do super-good, I'll do good enough. I don't think I'll have any big career.

Maybe in a way I'll always be kind of a survivalist. But I would like to be prepared for when I get to be 50 or 60—if I make it that far—so that I wouldn't have to need Social Security. I guess I'd have to say I'm part of the Establishment. I get my food stamps. A job would get me more into it.

Over a period of time I've learned what food to buy and what food not to buy, how to live inexpensively. I used to go into a store with my backpack and fill it with steaks and expensive canned food and just walk out. But I can't do that with food stamps. Now I get powdered milk, eggs, dry foods in bulk, and stuff like that. Food costs me about $80 per month. I could live on $100 a month for food, cigarettes, fuel, and a few little extras, but not very many, like buying nails, or a window, or parts for a bike. But I don't really need anything. I've got just about everything I need. Except there is a few things more.

I might stay here a couple of years, unless something drastically comes up. Like, if a beautiful woman says she has a house in town, that would do it, but if not for that, it isn't very likely. I'll have to build my own life.

I wouldn't mind working. I wouldn't mind driving a street-sweeper or something like that, or to buy my own piece of equipment, like a $30,000 or $60,000 piece of equipment, and just make money doing stuff for people. You see people all over who have cool jobs. Maybe they just do something around the house, like take out washing machines or something like that, or they own something or know how to do something that's not really hard labor but it's skilled labor.

But living here this way is a good start for me. I don't have to work my life away just to survive. I can work a little bit, and survive, and do something else.

Being by Myself. At this time of my life it's not really too good to team up with somebody. I've got to get my life together before I can worry about just going out and having a beer or a good time.

Being by myself doesn't make all that much difference. I guess that I'm sorta a loner. Maybe people say I'm a hermit, but it's not like I live 20 miles out in nowhere.

But I don't want to be alone all my life. I'd like to just go camping with somebody on the weekend. Have a car and a cooler of beer and a raft or something. Just go do something. It's nice to have friends to do that with. If I had a car and stuff, I'm sure I could get a few people to go. Without a car, man, shit....

Friends. A friend is someone you could trust, I suppose. I've had close friends, but I don't have any now. But I have some "medium" friends. I guess that's anybody who'd smoke a joint with me. And you see some people walking down the street or going to a store or to a pay phone. You just say, "Hi, what's going on?"

I know lots of people. Especially from Reform School. I know some day I'll see people I've known from there. I've already seen some. They're not friends, though; they're just people you might see to say hello and ask them what they've been up to and ask them how long they did in jail.

I had a few friends in southern California, but by the time I left there, I wasn't too happy with them. I guess my best friend was Todd. I used to ride skateboards with him all day. His older brother used to get pot for us. That's when I think I learned to ride the very best, because we both used to ride together all the time. We always used to try to beat each other out in whatever we did.

'I've Been More Places and Done More Things.' I've lived in a lot of different places. Like going to California. Living out in the country. Living different places in town. Dealing with people. Living at the Reform School. Living in Portland. Living here.

I've definitely had more experiences than some of the people I went to school with that I've seen lately. I know I've had more experiences and I've had my ears opened more than they have. In some things, I'm wiser than other kids my age.

I saw a boy I know a few weeks ago who is the same age as me. He lived in a house behind us when I was in fifth grade. He still lives in the same place. I think about what he's been doing the last nine years and what I've been doing the last nine years and it's a big difference. He went to high school. Now he works in a gas station, has a motorcycle, and works on his truck. He still lives with his parents, too. I guess that's all right for him, so long as he's mellow with his parents. That way he can afford a motorcycle.

But you've got what you've got. It doesn't make any difference what anybody else has. You can't wish you're somebody else. There's no point in it.

Some Personal Standards. In the summer I clean up every day; when it starts cooling down, I dunno. Sometimes if it's cold I just wash my head and under my arms. Last winter I'd get a really good shower at least every three days and get by otherwise. But I always wash up before going to town if I'm dirty. I don't want to look like I live in a cabin.

I don't really care what people on the street think of me. But somebody who knows me, I wouldn't want them to dislike me for any reason.

And I wouldn't steal from anybody that knew me, if they knew that I took something or had any idea that I might have took it. Whether I liked them or not. I wouldn't steal from anybody I liked, or I thought they were pretty cool. I only steal from people I don't know.

I don't like stealing from somebody you would really hurt. But anybody that owns a house and three cars and a boat—they're not hurtin'. It's the Law of the Jungle—occasionally people get burned. A lot of people don't, though. As long as they've got fences and they keep all their stuff locked up and don't leave anything laying around, they're all right. The way I see it, "If you snooze, you lose."

If you say you'll do something, you should do it. That's the way people should operate. It pisses me off when somebody doesn't do it. Like, you tell somebody you're going to meet them somewhere, and they don't show up. But giving my word depends on how big of a deal it is; if it's pretty small, it would be no big deal.

Sure, stealing is immoral. My morals can drop whenever I want to. But I don't like to screw somebody up for no good reason.

I went to Sunday School for awhile and to a church kindergarten, so I guess I heard all the big lessons—you get the felt board and they pin all the stuff on 'em and cut out all the paper figures: Jesus, Moses. But our family doesn't really think about religion a whole lot. They're moral to a point but they're not fanatics. It's too much to ask. I'd rather go to hell. But any little kid knows what's right and wrong.

Moderation: Getting Close Enough, Going 'Medium' Fast. One of my friend's older brothers in southern California was a crazy fucker. He'd get these really potent peyote buttons and grind them up and put them in chocolate milkshakes. One time they decided to go out to the runways where the jets were coming in, cause they knew somebody who did it before. Planes were coming in continually on that runway. They'd go out there laying right underneath the skid marks, just right under the planes. I never would get that close. Just being out there, after jumping the fence and walking clear out to the runway, is close enough. I never did lie on the runway....

When those guys went jocky-boxing, I didn't actually do it with them. I just was tagging along....

On the skateboard, I just go medium fast....

The fun part of skiing is knowing when to slow down....

> I don't know why I didn't get into drugs more. I've smoked some pot, but I've never really cared to take downers and uppers or to shoot up. I don't really need that much....
>
> I like to smoke pot, but I don't think of myself as a pothead. A pothead is somebody who is totally stoned all day long on really good pot, really burned out all the time. I smoke a joint, then I smoke a cigarette, and I get high. I just like to catch a buzz....
>
> If you really get burnt out, your brain's dead. You can get burned out on anything if you do it too much. I don't do it enough to make it a problem. If you take acid, you never know who's made it or exactly what's in it. I've taken it before and gotten pretty fried. I don't know if it was bad acid but it wasn't a very good experience....
>
> Sometimes when I want to be mellow, I just don't say anything. I just shut up. Or somebody can mellow out after a day at work--you come home, smoke a joint, drink a beer--you just sort of melt....
>
> Putting It All Together. Anything you've ever heard, you just remember and put it all together the best you can. That's good enough for me.

Formal Schooling

Schooling forms part of the experience of Brad's life, but not the vital part educators would like it to play. Yet throughout his early years, public schools were always available to him. In ten years he was enrolled in at least eight schools, spanning two states, ranging from early years at a small country school to a final eight months at a state reformatory, and including attendance at large urban elementary, middle, and high schools. I tracked down his attendance record at the school where he claimed he "had the world's record for ditchin' school." It may not be the world's record, but following his mid-year enrollment in grade 5 he maintained 77% attendance for the rest of that year and 46% attendance in grade 6 the year following. He changed schools during the year at least once in grades 4, 5, and 6, as well as beginning the year in a new school four times: "I guess I was in school a lot, but I was always in a different school."

As Brad describes it, school "did what it's supposed to do.... You gotta learn to read." He lays no blame, noting only that "Maybe school could of did better." He realizes that he might have done better, too: "I was just never that interested in school. If I knew I had to do something, I'd try a little bit. I could probably have tried harder."

The first school experience Brad recalls was in a church-sponsored kindergarten. Hearing Brad use objectional language, the teacher threatened to wash his mouth out with soap. So, at the next occasion when the children were washing their hands, he stuck a bar of soap in his mouth: "I showed the kids around me, 'Hey, no big deal, having soap in your mouth.'"

He recalls the first grade as a time when "I learned my ABC's and everything. It was kind of neat." His enthusiasm about schooling stops there. As he once explained, "I've always liked learning. I just don't like school." He could recall no particular class or teacher that he especially liked, and events associated with subsequent grades involved changes of schools, getting into trouble for things he did in class, or skipping school altogether. As early as fourth grade he remembers difficulty in "keeping up" with his classmates.

By his own assessment he did "OK" in school, but he recalls excelling only once, an art project in clay that was put on display and that his mother still keeps. During his junior high years his attendance improved and, for one brief term, so did his grades, but he was not really engaged with what was going on and he felt lost in the large classes:

> In those big classes, like, you sit around in a big horseshoe, and you've got a seat four rows back, with just one teacher. Like English class, I'd get there at 9:00 o'clock in the morning and put my head down and I'd sleep through the whole class. It was boring, man.
>
> And there was another class they tried to get me in--typing. I tried for a little while, but I wasn't even getting close to passing, so I just gave up.

While he was in junior high school, Brad was transferred to an EH (educationally handicapped) class that he felt was better for him: "I don't know if I felt I was special or not, but I didn't like those big classes. It was pretty hard stuff. I'd never had some of it before."

His public schooling ended in southern California. When he got shunted back to Oregon, he did not enroll in school again, although after he got "busted," schooling was the main activity in the eight months he spent in Reform School. He felt that he had attended "a couple of pretty good schools" in southern California during grades 8, 9, and part of 10, but, as usual, the times he recalls are the times spent out of class, not in it:

> By the end of school, I was cutting out a lot. Like, I didn't need PE. Look at this kid--he's been riding bicycles and skateboards all day all his life. I didn't need no PE. I don't need to go out in the sun and play games. I wasn't interested in sports. So I'd go get stoned. I'd take a walk during that class, go kick back in an orange grove, maybe eat an orange, get high, smoke a cigarette, and by the time I'd walk back, it was time for another class. I did it for a long time and I never got caught. Anyhow, then I switched schools.

Brad figures that because he wasn't doing very well in his academic work, he had to spend about an extra month and a half at the Reform School, "So then I started to speed up and do the stuff and then I got out." In his own assessment of the grade level work he was doing while there, "I was doing ninth grade work--I probably did some tenth and eleventh grade stuff, but not a lot of it."

I asked him to describe the grade levels to which he might be assigned if he were to return to school, although the question was purely academic, since few kids return to public schools after serving "time":

> For math, if I went back, I'd just be getting into tenth grade. In reading, I'd be a senior or better. Spelling would be about eighth grade. I can spell good enough. Handwriting, well, you just write the way you write. My writing isn't that bad if I work on it. I don't worry about that much.

On the other hand, he does recognize some limitations. He has, as he confesses, "kind of forgotten" the multiplication facts, and he is pretty rusty on subracting and recalling the alphabet. If you want to be a good speller, he feels you've got to "do it a lot," but at Reform School he admits he only did it a "little bit."

Except for his ability to read, his academic attainments are rather modest. Here is part of a letter to his mother he started but later abandoned in favor of a cheerier style:

> Hi
> if I sit hear and stair
> at this pieac of paper
> eny longer ill go crazy
> I dont think im scaird
> of witing just dont like
> to remind myself I
> need improvment. its
> raining alot past
> few days but its warm
> 'n dry inside....

Reading was the school skill at which Brad was most proficient, and his confidence is not shaken by the fact that some words are difficult for him. He seldom reads for pleasure, but he spends hours poring over instruction manuals. My impression is that although his oral reading is halting, he has a fairly high mastery of content. That is also his own assessment. When, at his father's insistence,he briefly entertained the idea of joining the Army, Brad had first to take the G.E.D. test for his high school equivalency and then take a test for the Army. He felt he passed "pretty high" on the Army test and had no problem at all with the G.E.D. requirement. On some parts of the G.E.D., "like reading or a couple of other ones" he felt he did "super-super good."

As Brad observes philosophically, "the people in college today are probably the ones who didn't sleep when I was in English class." At the same time, school is a closed chapter in his life. Though ten off-and-on years of going to school paid rather low dividends, he did achieve basic literacy. Given his commitment and capacity, I think it fair to say that the schools managed to do an adequate job of "schooling" him in spite of his inadequate enthusiasm and involvement. For a kid like Brad, school probably never did offer much opportunity.

The question remains, What happens to Brad's education now that his schooling is finished? And is it his schooling or his education that is "inadequate"?

Adequate Schools and Inadequate Education: An Interpretation

It might be socially desirable if Brad could read better, write better, do arithmetic better, spell better. With better spelling skills, he would "stare" rather than "stair" at a blank page before him and perhaps be less concerned with needing "improvment."

Considering that he devoted some (although certainly not exclusive) attention to schooling for ten of his twenty years, he does not do these things very well.

On the other hand, it might be regarded as a tribute to public education that he can do them as well as he does. His level of academic achievement may be disappointing, but it is not inadequate. He is literate. For lots of kids, school is too verbal, too abstract, too vicarious, too boring. For Brad, things happened too fast--he was crowded and rushed. He may be out of "synch" with the world around him, but in his post-school life he has managed to regain control of both pace and space.

He does not "blame" schools, but neither does he see them as an opportunity missed nor an avenue for the future. Like other early leavers, he can think of nothing that would have kept him in school (cf. Oregon Early School Leavers Study, 1980, p. 16, in which only one third of the young people interviewed responded that "something might have been done to affect their decision to quit public secondary school"). Admittedly, both Brad and the schools "could have tried harder." At the same time, neither failed totally. If one is inclined toward an optimistic view of things, their patience with each other is commendable, their achievement noteworthy.

True, it would be "nice" if Brad's performance with the 3 Rs was more polished. But such socially desirable attainment pales before problems of greater social consequence. Brad's schooling has stopped, but his education has not. It is his education that now presents society's challenge, but the challenge has not been taken up.

Schools can affect the rate and level of academic achievement, but schools do not set the course of student's lives. Schools are expediters for many, but they do not and cannot "reach" all, even though they may ever so briefly touch them. Quite independent of schooling, Brad's enculturation as a member of his society is an ongoing process, one in which each human is engaged throughout a lifetime. The present course of that process seems to reflect all too well what he feels society expects of him. Nothing. He is left to figure things out for himself. He is remarkably self-conscious about trying to figure things out, but many of his answers put him at odds with society; what appear as satisfactory resolutions to him are not acceptable to the majority of us. Maybe we cannot reach him; surely we cannot reach everyone like him. But I am astounded to realize that there is no systematic, constructive effort to influence the course of his life now that he is beyond school.

If Brad is able to "get his life together"--and there is a possibility that he can--it will be almost entirely through his own effort. His personal style as a loner helps buffer him from peer influences more likely to get him into deeper trouble than to guide him on the straight and narrow. The fact that he can live "on a mountaintop in Oregon" rather than on a beach in southern California would seem to give him an incredible advantage over his fellow "street people." Time and space seem to be on his side. He is not crowded or pushed. At the same time, he has not escaped the influence of material wants and creature comforts so prevalent in the society in which he lives. He "hunts and gathers" in the aisles of supermarkets, in neighborhood garages, and at residential building sites for his necessities. He concedes that stealing is wrong, but, among his priorities, necessity (broadly defined to allow for some luxuries as well) takes precedence over conformity. Still, he takes what he needs, not everything he can get his hands on. He is not now, nor does he see himself becoming, a "super thief."

I do not see how society can "teach" him not to be sneaky or to shoplift or to steal or rob. Most families try to do that. His family wasn't entirely successful, though more of the message seems to have gotten through than one might at first assume. In spite of his antisocial behaviors, his statements reveal his underlying enculturation into mainstream American society. There is a foundation on which to build, but there is neither external help, nor support, nor a modicum of encouragement shaping that progress. Was schooling "an" opportunity in Brad's life, or is it the only directed opportunity he gets?

Certainly there might now be a more concerted effort to exert a positive and constructive direction in his life, one that could diminish the attractiveness of his antisocial behavior by providing some reasonable and realistic alternatives to it. Any such educative dimensions would, however, have to be in the form of increasing the options available to him rather than trying to "shove" him in some particular direction. He has heard enough lectures about being a good citizen. It seems to me that society's best strategy is to maximize opportunities for him to satisfy his wants in socially acceptable ways. Fear of getting caught isn't much of a deterent to someone who thinks he won't get caught. With an attitude toward unlawful behaviors like shoplifting, "ripping things off," burglary, becoming rather dependent on "pot," or operating a vehicle with a suspended license, that "just about everybody--or at least everybody my age--does it," Brad can too easily find himself "in the chute" without ever realizing that "everybody" isn't there after all. Having gotten "out" of mainstream society, or made himself rather marginal to it, he doesn't see a way back "in" and he's not sure it is worth the effort to try.

It is convenient-- and an old American pastime--to place blame on the schools. The concept of educational adequacy, when pointed at the schools, invites further blame setting by identifying present inadequacies of youth with past inadequacies of the schools (cf. Levin, 1980).

Employing the anthropologist's distinction between schooling and education that I have suggested here invites us to examine all the educative influences in our lives, both during school years and after them. The problems Brad now poses for his society are a consequence not of inadequate schooling but of inadequate socialization, and it is with his socialization that we should concern ourselves. Society is poised for the moment when Brad mades a serious mistake, but otherwise it expresses no interest, makes no effort to point the way. It does not beckon. It would seem that society would rather not hear from Brad at all. Maybe he is right; maybe seventy dollars in food stamps is society's way of paying him to drop out.

One hears the argument that today's youth vacillate between the extremes of taking what they want or expecting everything to be handed to them on a silver platter. One finds a bit of that in Brad's dreams of suddenly finding himself owning and operating a $60,000 piece of machinery and in his reluctance to take a job like dishwashing where one's work entails cleaning up after others and everyone can watch you perform a menial job. But I wonder if young people really believe that society "owes" them something. Perhaps that is their way of expressing frustration in not seeing how they can ever begin to accumulate resources of their own comparable to what "everyone else" already has. A willingness to defer gratification must come easier to those who have not only agonized over the deferment but have also realized eventual gratification. Nothing Brad has ever done has worked out that well—at least prior to his present effort to build both a new cabin and a new life-style.

In a society as materialistic as ours, issues of opportunity boil down to money, not to schooling. Brad has limited access to money. That is why food stamps, in an annual amount less than $900, figure so importantly to him. As a vital link in his life, food stamps show that it might indeed be possible for some governmental agency to confront him in an educative way. But the educative value of a welfare dole is limited. While the stamps have made a better consumer out of him (buying generic brands, buying large quantities, buying staples) he has also realized that the first $70 of any month's take-home pay is money he would have received "free" from the food stamp program. To "earn" food stamps, he must remain poor. Alternatively, even if he could find a "second-rate" job, part of his earnings would simply replace the dole, his other expenses (transportation, clothes, maybe a second-rate apartment) would increase dramatically, and he would be trapped again in a second-rate life. And so his attitude toward getting a job is: Why bother?

I invited Brad's thoughts on what kind of help might be made available to him. His idea, other than a dream of finding just the right job without ever really going to look for it, is that there might be some kind of "day work" program wherein anyone who needed money would simply appear at a given time and place, do a day's work, and receive cash that evening for it. I'm sure Brad's thoughts turn to the end of the day when each worker receives a pay envelope; my practical mind gets stuck on what one would do with a motley pick-up crew that wouldn't inadvertently make mockery of work itself. Yet implicit in his notion are at least two critical points.

First is a notion of a right to work: If (when) one is willing, one should be able to work and be paid for it. Brad finds no such right in his life. He is "No Help Wanted"; he hears "Not Presently Taking Applications." He has experienced these things directly; during the time he has lived "in the hills," regional unemployment has hovered above 10%. He is not entirely without a social conscience when he observes that if he got a job he would only be taking it away from someone who needs it more. Brad does not really need a job. And no one really needs him.

Second is a notion of an overly structured wage and hour system that effectively prices many unskilled and inexperienced workers like Brad right out of the job market and requires a full-time commitment from the few it accepts. Brad's material needs are slight. At present he could preserve the best elements in his carefree life-style by working only part time. However, the labor market doesn't offer such options except for its own convenience. Either you want a job or you do not want a job. And work for its own sake casts no spell over Brad; he does not look to employment for satisfaction, identity, or meaningful involvement, only for money.

School provides opportunity and access for some youth; work provides it for others. Neither school nor work presently exerts an influence on Brad. He is beyond school, and work is beyond him. Without the active support of family or friends, and without the involvement of school or work, he is left to his own devices. In his own words, he doesn't have much to lose. From mainstream society's point of view, we would be better off if he did.

After so carefully making provision for Brad's schooling, society now leaves his education to chance, and we are indeed taking our chances. No educative effort is being made in any quarter to exert a positive influence on him. But educative adequacy in the lives of young people like Brad is not an issue of schooling. And it is not a local issue. Schools provided him one institutional opportunity; they do not serve him now. His next institutional "opportunity" may be a custodial one. If it is, we all lose, for he is not the only one who will have to pay.

Brad's story is unique, but his is not an isolated case. It is one of thousands. His uninvited presence on my 20-acre sanctuary, in search of sanctuary for himself, has brought me into contact with a type of youth I do not meet as a college professor. He has piqued my anthropological interest with a world view in many ways strikingly similar to my own but a set of coping strategies strikingly different. It is too easy for people like me to think of people like Brad as someone else's problem. He has brought the problem home to me in its "complex specificness." I do not find ready answers even in his particular case; I am certainly not ready to say what might, can, or must be done in some broader context.

Little is to be gained from laying blame at the feet of Brad's parents or his teachers, and to do so is to ignore clear indication of their repeated, if not always effective, efforts to help and guide him. In turn, my efforts now may also go awry; if they do, I will feel the sense of tragedy without needing the added burden of blame. The easiest course is to blame Brad himself, but to do so is to abandon hope and a sense of collective responsibility. The only certainty I feel is that it is in the national interest to concern ourselves with the continuing education of young people like Brad.

I do not yet know whether he can be "reached" effectively or in time. I know that in his particular case no agency is trying. From his perspective, he sees neither alternatives nor opportunities. He is adrift.

Because we tend to equate education with schooling, we are inclined to look back and ask where the schools went wrong. It is time to look instead at how the educative efforts of the schools are—and might better be—augmented, complemented, and underwritten in other ways within our society. In that broad perspective, our national efforts at education are woefully inadequate. But until I found Brad living in my backyard, I hadn't thought much about it. How did we ever come to expect the schools to do it all?

REFERENCES

Geertz, C. The Interpretation of Cultures. New York: Basic Books, 1973.

Hansen, J.F. Sociocultural Perspectives on Human Learning: An Introduction to Educational Anthropology. Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Harrington, C., Psychological Anthropology and Education: A Delineation of a Field of Inquiry. New York: AMS Press, 1979.

Leis, P.E. Enculturation and Socialization in an Ijaw Village. New York: Holt, Rinehart and Winston, 1972.

Levin, H.M. Youth Unemployment and Its Educational Consequences. Paper presented at the Australian Council for Educational Research, Melbourne, 1980.

Lewis, O. Children of Sanchez: Autobiography of a Mexican Family. New York: Random House, 1961.

MacNeil, I. and G. Glover (Producers). Four Families. (Narration by I. MacNeil and M. Mead). National Film Board of Canada, 1959.

Oregon Early School Leavers Study. Salem: Oregon Department of Education, 1980.

Simmons, L., editor. Sun Chief: The Autobiography of a Hopi Indian. New Haven: Yale University Press, 1942.

Wallace, A.F.C. Schools in Revolutionary and Conservative Societies. In F.C. Gruber (Ed.) Anthropology and Education. Philadelphia: University of Pennsylvania Press, 1961.

Wolcott, H. The Anthropology of Learning. Anthropology and Education Quarterly. Forthcoming, 1982.

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TOWARD A POLICY DEFINITION OF EDUCATIONAL ADEQUACY

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It is possible to interpret the growing interest in the concept of minimum educational adequacy in either of two ways. On the one hand, such interest may reflect a retreat from the concept and imperative of equal educational opportunity. As such it could well constitute the leading edge of a more broad-based retreat evident in recent political trends. On the other hand, minimum educational adequacy can be traced to statements emanating from legal opinions in the history of school finance litigation. There is growing interest in the search for ways to flesh out the meaning and implications of the concept, which are only tangentially treated in that history.

I have selected the latter approach in this paper. My treatment, however, does not avoid issues of educational opportunity. Indeed, by shifting the focus from input-side equality to that of output-side equality, I have tried to show that the term is capable of quite radical interpretations. In the process, school finance reform, the framework in which the term originated, can be seen to result from, rather than lead, attempts at achieving equality of educational opportunity.

I will begin by asking some basic questions and adopting a working definition of the concept of educational adequacy. The fundamental questions I will try to answer are (1) educational adequacy in what and (2) educational adequacy for what? Such an approach forces the exercise out of the realm of speculative philosophy and into that of practical politics.

I will, therefore, address the following in the course of this paper: (1) the need to deal with the concept of adequacy; (2) possible definitions of adequacy viewed from a policy perspective; (3) the statement of a framework with which to explore the various dimensions of minimum adequacy; and (4) the formalization of a policy model of educational adequacy. In the sequel, I shall use the terms "adequacy" and "minimum adequacy" interchangeably.

Why Adequacy?

Adequacy is a dimension of the much broader concept of equality of opportunity. It is no exaggeration to state that the recent history of school finance reform is and has been almost exclusively bound up with this objective of equality, whether identified in terms of equality of inputs into the production of education or equality with respect of the raising of taxes to finance education. The major school finance cases, beginning with Serrano, sought clarification on various aspects of the implications of equality of opportunity in the provision of public education. It therefore might be instructive to review a broad range of these notions of equality of educational opportunity as a basis for judging where adequacy fits, and how, in the approach to equality.

Before doing that, however, it is necessary to specify that the notion of equality of opportunity undergirding the analysis here is identified in terms of equal treatment of equals and unequal treatment of unequals, a meaning consistent with the long line of school finance litigation, based as it is on the concept of equal protection. This emphasis on equality is

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congruent with the more general thrust of both American and European public philosophy as these have evolved over the last decade or so. Daniel Bell, for example, has pointed to the emergence of the reduction of inequality as perhaps the central question of post-industrial society; and in pervasiveness it surely parallels the centrality of the notion of liberty characteristic of the public philosophy of the 19th century (Bell, 1972).

Also, it is important at the outset to identify the unit of analysis. Although it is possible to think of the family or even the school district as the appropriate unit, in this paper I will consider the individual student as the appropriate unit of analysis in the approach to the achievement of equality of opportunity in education. I must quickly admit that this approach is likely to conflict with notions of equality identified along district lines. I make the choice in order to do two things: (1) I wish to keep the focus of the paper in line with the broad thrust of school effectiveness research that has been reported over the last fifteen years. (2) As I hope to demonstrate, the achievement of educational adequacy, for individual students, in the sense of attaining a certain range of the distribution of their scores irrespective of socioeconomic class or income or initial level of basic motivation, should not be constrained by the inadequacy of educational finance at the local level. In a sense then, I assume away issues of finance limitation, for if this is not the case, it is not clear what meaning could ever attach to ensuring that students perform at particular levels.

As Arthur Wise has shown, one may define equality of opportunity in a great many ways (Wise, 1976). One may define equality of educational opportunity negatively, (for example, by identifying cases where some common-sense notion of equality of educational opportunity has not been satisfied with respect to students from different walks of life or even different geographical regions) or, more positively, by asserting standards that have to be met before equality of educational opportunity can be regarded as having been satisfied. According to this first kind of definition, equality of educational opportunity is not shown to exist; on the contrary only cases where it is known not to exist, by virtue of socioeconomic grouping or geographic identification can be identified. This clearly is not a very helpful definition for policy purposes.

Over and above the negative criterion, there is the definition of educational equality which recognizes that students' needs will vary from individual to individual and that equality of educational opportunity would seem to require, in these circumstances, that educational expenditures be made up to some point of maximum efficiency; i.e., where the increment in outcomes produced by the increment in such expenditures is reduced to zero. This is obviously a difficult criterion, inasmuch as it requires the solution of difficult issues of measurement and clarification of educational and pedagogical theory. It is a problem to which I will return. Here it is only necessary to point out that equality has an allocative efficiency meaning, or can be used in that sense, and that criticisms of its policy relevance as being purely equity oriented must somehow be muted.

Additionally, this full-opportunity definition underscores the potential significance of education finance in the achievement of equality of educational opportunity, since restrictions on the availability of funds to support education activities to the extent of insuring such an efficiency criterion could prove decisive.

A third definition of equality of educational opportunity is associated with the notion of a minimum foundation program on the assumption that with the provision of that minimum guarantee, made at the district level, at least a minimum amount of educational opportunity is assured. Here, what is equalized is educational cost, at least to a minimum level, on the assumption that such a minimum is sufficient, viewed from a point of view of social necessity and educational pedagogy. Clearly such a definition does not guarantee equality of opportunity, to the extent that districts are capable of spending more than that stipulated minimum, sometimes by quite wide margins. Thus, while minimum levels of expenditures are guaranteed on this definition, equality of expenditures is not.

Given also that the definition of equality assumed in this paper is student-identified rather than district-identified, this minimum foundation notion is deficient on another count, since district equality need not imply student equality. In fact, district inequality implies wide per student inequality across districts.

Yet another definition of equality of educational opportunity formulates the concept in terms of a requirement to allocate resources to each student until some specific level of achievement has been attained. This definition, it is obvious, is somewhat akin to recognizing that students differ as to their capabilities and that true equality of opportunity must somehow take that fact into consideration. From an economist's point of view, this notion of educational opportuntiy connects with the important distinction between stocks and flows. "Stocks" refer to the accumulated amounts of a thing up to a particular period, while "flows" refer to the amounts of that thing that are forthcoming during a given period. In educational terms, stocks are essentially the accumulated skills and cognitive equipment students have as of a specific moment, while flows could refer to the effort or resources expended at or during a specific moment in time. Clearly, students with large accumulated stocks can achieve high results even with low effort during a particular period; the same is not true for students with low or inadequate accumulated skills and cognitive equipment.

This distinct[illegible]uggests that proper caution be exercised in assessing varying amounts of educational input as adequate. In fact, this minimum criterion clearly implies differential treatment of unequals; this time the unequals are identified in terms of differing stocks of beginning resources, e.g., in cognitive ability. While such a notion places great demands on the capability to effectively distinguish those differing stocks, and to identify the appropriate levels of resources required to achieve equality as an end-result, it is nevertheless a very useful concept, to the extent that it identifies important dimensions of the policy problem likely to be obscured by other conceptions.

There is another dimension of the educational process that bears on the notion of equality of opportunity. It has to do with the nature of educational processes as essentially intertemporal. Educational outcomes are clearly a function not only of current inputs to the learning process but also of the way in which capabilities change over time. As these capacities change, such changes can be expected to affect the efficiency with which current resources can be used. This broadening of the intentionality of equality becomes meaningful then, since it calls attention again to the "stock" aspect of educational resource inputs—specifically, how those stocks change, quantitatively as well as qualitatively, and their effect on outputs at different points in time. If policy is seen to have both short and long-term implications and dimensions, this becomes an important consideration.

Yet another sense in which equality of opportunity may be evaluated deals with the broader framework within which education efficiency can be affected. If the effectiveness of education provisioning is related in any way to the ability of students to secure basic rights such as functioning in the marketplace and participating meaningfully in governmental processes, differential levels of exposure to the prevailing social technology, defined in some broad sense, could very well be a decisive factor in causing differential outcomes from similar levels of allocation of education resources. In particular, if two students differ drastically in their exposure to the technical apparatus of the period through the combination of any set of circumstances, then they will likely not benefit equivalently from the expenditure of equal dollars. In that situation, a case is easily made for seeing differential levels of exposure as frustrating the attainment of equality of educational opportunity.

The final definition that appears relevant in this context is the levelling definition, in which it is required that resources be allocated to students in inverse proportion to ability. Again, this definition of equality of educational opportunity recognizes some of the deeper objectives of broad government policy now implemented in the context of the reality of widely differing abilities among individual children. Such a definition, like the previous one, makes eminent sense as an equity criterion, since not to require differential treatment in these circumstances would constitute a purely allocative efficiency requirement in the sense of putting more resources where those resources could more efficiently be used; or it could be asserting the constancy of ability endownments accross individual students. On the first count, such an approach would reflect a denial of one aspect of governmental responsibility, namely, a search for equity as well as efficiency; on the second, it would constitute a formulation of education policy on empirical grounds that are questionable.

Given the extremely likely case of widely different endownments occasioned by socioeconomic conditions, conceptions of equality of opportunity that recognize these pervasive conditions make a good deal of sense. They support the formulation and execution of public policy in education to facilitate equitable as well as efficient outcomes. Another way of putting this is to say that there are powerful contingent forces that often mediate the effects of resource input on levels of output. Not to recognize them allows for contingent forces to perpetuate received patterns which would result from such non-differential resource use.

An alternative way of looking at this issue would define equality of opportunity in terms of access, participation, and outcomes. One could then argue that government initiatives in education make little sense if in fact they do not result in appreciable gains in equality of outcomes. As Derek Phillips has shown deep philosophical differences emerge when the issue is posed in this manner (Phillips, 1977). However, if equality of outcomes means that it is almost impossible on the basis of race, sex and socioeconomic conditions, to predict life chances, a more hopeful convergence of viewpoints can perhaps be predictably assumed. Whether one can assert that major federal educational initiatives of the last several years have resulted in the achievement of equity defined in terms of outcomes is still not clear. In fact, W.O. Brookover and Lawrence Lezotte have argued that based on the available evidence for Title I, ESEA; bilingual education; and Emergency School Aid Act programs, the results of practice cannot be said to have borne out the intent of these programs in the achievement of equity outcomes.

They argue in fact that equity of outcomes was not achieved in either Title I, ESEA, or in bilingual education. While outcomes studies are few on Emergency School Aid Act Programs, the available evidence does suggest that they have not brought academic achievement of minority students significantly closer to that of non-minority students (Brookover and Lezotte, 1981).

In anticipation of the argument that such results suggest that equality of outcomes cannot really be a practical objective of educational policy, other work cited by Brookover and others suggests quite the contrary (Brookover et al., 1979; Lezotte et al., 1980). Additionally, the recent work of James Comer, describing the work in two elementary schools in New Haven argues strongly for the view that there are effective schools and that schools can be effective even in the face of seemingly overwhelmingly odds; namely, being located in very poor areas and having mainly minority populations (Comer, 1980).

I began this section with the question, Why adequacy? In an attempt to provide an answer, I asserted that adequacy could be viewed as a dimension of the broader concern for equality of opportunity, and that laying out the various ways of looking at the latter concept could provide some leads to the former. This detailing of various conceptions of equality of opportunity has drawn attention to the more obvious limitations of some of the traditional conceptions. Broadly, we might conclude that while output side considerations of equality would appear to pose some difficulties, mainly of a measurement and value judgment nature, input side conceptions, though easier to handle, appear to do some violence to notions of equality of opportunity that pay special attention to educationally relevant inequality among students. Thus adequacy could be viewed as reflecting groping attempts at referencing output equality without making explicit the necessary underlying value judgments and their empirical referents. In this sense, adequacy can be regarded as an approach to the securing of equitable educational outcomes, as opposed to equality in inputs. On that count it strikingly parallels the notion of progressive taxation on basic normative grounds.

A Definition of Adequacy

Given the choice of a policy framework for defining adequacy, the two issues--adequate for what and adequate in what?--must be answered. "For what" adequacy identifies instrumental referents, as for example adequate skills to perform a particular task, or adequate curriculum for ensuring minimum competency. "For what" adequacy also suggests that certain environmental conditions likely affect the efficiency of the technology in the production processes of education. "In what" adequacy, on the other hand, identifies the objectives or goals sought. For the moment, at any rate, it should be thought of as legitimate, quite independently of our current ability to measure these goals precisely. A careful reading of Rodriguez supports this way of looking at possible meanings of adequacy. As Wise has argued, "for what" in San Antonia v. Rodriguez "is to fulfill a citizen's rights under the Constitution: The schools must prepare students to exercise their constitutionally guaranteed rights....Minimum educational adequacy is presumably that amount of education required to prepare a student to have the knowledge and exercise these rights" (Wise, 1976). Again, in Robinson v. Cahill, the New Jersey Supreme Court interpreted the state's constitutional guarantee of "thorough and efficient" education to mean that educational opportunity necessary in contemporary settings to facilitate exercise of the role of citizen and worker. The court concluded that the state was not in this sense minimally adequate.

In a more recent case in West Virginia, attention is focused on the outcome of the class action suit now being heard in the Kanaudha Circuit Court. There the State Supreme Court has already defined the contents of "thorough and efficient" education and has ordered the circuit court judge to in fact define educational quality. In so doing, the high court itself has defined that quality education as one which "develops, as best the state education expertise allows, the minds, bodies and social morality of its charges to prepare them for useful and happy occupations, recreation, and citizenship, and does so economically" (Ward, 1981).

These two basic ways of posing the question of adequacy in turn raise their own questions. It is not clear, on the input side or on the output side—in our terminology, "for what" and "in what"—what specific aspects of inputs and outputs should be considered, and how. Despite the support one finds for this way of looking at educational adequacy, more difficult analytic questions still need to be resolved. For example, on the "for what" side, the relevant questions refer to choices between expenditures, real resources, and the extent to which "need" factors should be recognized. On the "in what" side, the relevant decisions are those having to do with the outputs and how they are to be measured. Among measures defined along the mean, or other dimensions of outcome distribution, it has to be decided which should be selected.

Parenthetically, it is instructive to note that these questions clearly evidence a shift from concerns of school finance and toward more centrally educational questions. Thus, while this search for the meaning of educational adequacy began with equalization associated with and emerging from school finance cases, it has led away from those strictly construed concerns of school finance. I believe this turn is one that is very welcome. In fact, it is interesting that it parallels another important shift in school effectiveness research, this time away from general production function and toward a more micro-oriented approach to school effectiveness through within-school and even within-classroom methods of efficient resource allocation (Thomas, 1980). That these two shifts are occurring at approximately the same time is indeed an interesting phenomenon, since they both speak to issues that are more centrally educational, in terms of ultimate objectives and efficient educational technology.

If expenditures are the policy variable to be manipulated, relatively few questions would arise as to the way in which this ought to be done. Given some clearly defined objective, the task could be easily accomplished as long as the technology for turning these dollars into desirable levels of that output is known and as long as variations in the effectiveness of each dollar of expenditure across districts are relatively unimportant. These are heroic assumptions, however, and this fact suggests that the sufficiency of defining adequacy through nominal expenditure manipulations is only an apparent one.

An alternative policy variable defined now in terms of real resources would clearly be preferable. Here cost differences between localities would be important in determining actual dollar amounts of expenditure, as would the recognition of student differences along educationally relevant dimensions. While I do not minimize difficulties in this regard, the fact that cost indexes are increasingly being constructed is a very hopeful sign. Such indexes typically take into consideration adjustments necessary to mediate the effects of price differences of school resources, but do not reflect the need factors and their effects on differential nominal expenditures.

It is impossible in a brief essay to deal with all of the problems inherent in properly deriving a cost index of education resources. Briefly, however, the major analytic problem involves estimating of demand and supply equations for particular resource inputs and seeing how far different supply prices are affected by non-elective local district decisions. It is likely that different model specifications will lead to widely different sensitivity to measures of resource input prices to district character and socioeconomic mix, as well as size (Chambers, 1980).

Post-Serrano responses of state schooling arrangements have taken two directions: Either full state funding or district power equalizing or one of the variants of the latter. It is thus conceivable that these arrangements could be modified to include cost-difference adjustments and that the greater the state assumption of local education expenditures, the more justification for such inclusion.

None of this, however, serves to minimize the enormous difficulty of identifying minimally adequate real resource inputs, as this also depends on agreed-upon and relatively clearly identified output-side objectives. In fact, on the output side, the difficulties, both conceptual and measurement, would appear to be at least as great as those on the input side. The implicit notion of adequacy emerging from both Rodriguez and Robinson v. Cahill is one that ties schooling to the exercise of Constitutional guarantees. Consequently, there are two levels of input/output relationships that have to be considered. There are, first, those that inhere in the within-school production processes; and there are those that define the relationships of schooling outputs to the exercise of more basic Constitutional guarantees. Even if we could meet the former, the latter set poses enormous difficulties. I would argue, however, that educators could be relied upon to have a sense of proximate output indicators that are related to these more ultimate educational objectives, and that some agreement could be expected in an attempt at identifying a minimal set of these proximate output objectives.

Additionally, although settling on output objectives to be achieved poses the above problems, should output objectives be substituted for the traditional input ones in approaches to public school finance reform, it would be possible to link the recently emerging sentiments of the courts with state practices in a manner that would accomplish the inclusion of cost and need considerations in defining minimally adequate equitable outcomes in school provisioning. Such a view stems from an appreciation of the economist's approach to identifying appropriate levels of inputs: namely, first to specify output levels or at least some objective, along with production processes, and then to let input requirements emerge from such logically prior considerations. Clearly, the legal problems involved in addressing equality of opportunity or even minimum adequacy through input-side considerations are bypassed in this approach, which throws up appropriate input-level requirements as an implication of setting output targets, given a production function.

Two questions arise. The first one asks whether such output targets can be defined and, if so, what they would be in the context of minimum adequacy. The other critical question deals with the implicit production function. Knowledgeable observers of the legal aspects of school finance reform note a clear distinction in the way the assumption of an input-output framework was viewed as important in Serrano and Horton v. Meskill on the one hand, and Rodriguez and Robinson v. Cahill on the other. Wise, for example, has argued that in the former set of cases, the finding of injury was based on equality or inequality of expenditures, while in the Texas and New Jersey cases there was an implicit acceptance of some relationship between inputs and outputs. With respect to the latter, Wise writes that, as far as these cases were concerned, "the remedy envisioned is not equalization; rather, it is the concepts of minimum educational adequacy which rests on a belief in the cost-quality relationship" (Wise, 1976). The emerging notion of adequacy is clearly a move away from a purely input-side determined concept of equality of educational opportunity to at least an output-side identified one in which input requirements are implicitly determined.

In more recent litigation, an emerging consensus seems to be in the making with respect to educationally relevant outcome objectives. In this regard, the handicapped children cases are significant. Here, in the Pennsylvania Association for Retarded Children v. Pennsylvania case, the state's claim concerning the uneducability of retarded children was disputed. The result was a consent decree in which the right of retarded children to free public education consistent with their learning capacities was affirmed. In a similar decision in the District of Columbia, the denial of retarded children to free public education was also struck down in a manner which, quite significantly, rules out finance limitation as a defensible reason for the limitation of a right. In Lau v. Nichols, the very important decision was handed down in which educationally relevant deficiencies were required to be corrected by the state. So despite the obvious difficulties that can be anticipated in dealing with output-side definitions of opportunity, the fact of Lau and the other recent cases does suggest that the courts have been less unwilling to rule on more central issues of educational practice. This is a significant point, for it allows a first comprehensive approach to a definition of adequacy that makes sense from a judicial as well as an economic standpoint. This departure from judicial caution has identified need factors as relevant; it has also identified cost factors as important, in judging whether exclusion from educational processes has occurred. Minimum adequacy seems to properly require therefore the assertion of non-exclusion from the educational process, given the relevance of need and differential cost considerations as impinging importantly on the outcome of non-exclusion.

Why should non-exclusion be regarded as so important? The answer, I believe, lies in a proper appreciation of the nature of the good in question, i.e., education. Education has both consumption and investment dimensions. The purely consumption aspects of education are to be identified with those aspects having to do with pure enjoyment, quite separate from being attached to the function of generating skills that are marketable. On the other hand, there is the investment side of education, associated with the denial of present consumption for the purpose of enlarging the human capital embodied. Associated with both consumption and investment views about the efficacy of education is a presumption concerning the capacity of the educated individual to generate external benefits that enlarge the general welfare. The social benefit associated with education plays a large part in supporting one of the basic reasons for public requirements for education: namely, the expectation that society as a whole benefits in countless ways from a better educated citizenry. It suggests that in deciding on the amount of education to be provided and its distribution, we ought to err on the side of providing more rather than less, since not to do so will lead to lower levels of general welfare.

The emphasis placed on guaranteeing non-exclusion thus has sound economic support. It is based not only on the enhancement of individual consumption benefits and investment returns, but also importantly on the positive external benefits attaching to elementary and secondary education.

Minimum adequacy makes eminent sense, therefore, not only on the basis of the traditional equity norms I have based it on until now, but on more efficiency based ones concerning the appropriate level of production and consumption.

Elementary and secondary education is traditionally provided by individual states and localities. If the above argument holds, spillover benefits are likely to accrue beyond the boundaries of individual states. In that eventuality, there is reason for higher level governments to assume greater responsibility in the financing of those minimum levels of education, and deficiencies in local finance capacities do not constitute sufficient reasons for holding the local provision below the specified minimum adequate level.

Levittown is typical of the kind of broadening in respect of relevant educational issues just mentioned. It includes the typical fiscal neutrality considerations, but it goes beyond this by recognizing concerns for special student populations, municipal overburden questions, cost variations among school districts, and the implications for finance reform of the inclusion of these factors affecting the availability of real resources. This shift from the more narrowly conceived fiscal neutrality of the Serrano type is fully consistent with the arguments outlined above. I believe that the 1980s will witness much more in this direction.

Balanced evaluation of this shift to an output-identified understanding of educational opportunity and minimum adequacy requires assessing the importance of any negative implications of such a shift. Apart from the rather difficult issue of the apparent intractability of output measures of equality, as opposed to the relative ease of measuring input side equality, as well as the very real problem of specifying the underlying production function, there are no compelling reasons for failing to move in that direction. That such a shift may prove more costly at the margin is quite likely. This would have the effect of constituting a floor under the historic upward trend of state expenditures for elementary and secondary education, but it may also have the effect of being an incentive to move to more innovative ways of education finance--as for example, tying such finance more to income measures of ability and less to property wealth--and in so doing relieve the state to some degree of substantially increasing its level of support for education. The exact empirical implications cannot be ascertained without extensive further analysis.

On balance, therefore, this shift appears to be worthwhile. School finance reform could very well result from educational reform if input considerations emerge as implications of policy determined output-side specifications of more centrally educational objectives. Controversies about the usefulness or appropriateness of particular educational strategies would be more firmly anchored to these clearly specified educational objectives; and the entire equity debate would likely have a more solid logical basis.

It is important, moreover, to stress the point that this does not represent a withdrawal from fiscal neutrality, but in fact is an enlargement of the conditions of the equity principle supporting fiscal neutrality. The notion of adequacy, as it has emerged here, incorporates fiscal neutrality as only one (albeit necessary) component of its set of defining characteristics.

The definition of adequacy that has emerged is one in which adequacy is defined in terms of three essential criteria: (1) an equalization program, (2) the inclusion of need factors, and (3) the inclusion of cost differentials in determining appropriate levels of real resources, all in a framework whose evaluation mechanism was driven by the achievement of admissible levels of policy determined relevant output indicators. How might this be formalized?

I presume a policy framework in which the planning for state education is done with the aid of an allocation model of the mathematical programming type. All such models require the expression of an objective that the policy-makers are desirous of achieving in some definably optimal manner. Such an objective implies the use of resources of a variety of kinds to "produce" desired outputs. These resources are obviously not in excess supply, and therefore they exert some downward pressure on their excessive use. Other constraints may exist which are of a policy determined or even of an institutional variety are included to round out the full specification of the constraint set delimiting the possibility space. Finally the solution to the problem includes requirements that variables may not take on negative values.

The foregoing describes in very brief outline a typical policy model of the mathematical programming type. The linear programming model variety is a special case in this broader class. Such models have been extensively used for structured policy problems for quite some time, and the educational applications have been quite rich also. These models require the specification of some reasonable objective, and then the derivation of implied optimal outcomes, given the typical resource availability constraints.

It is not a limitation on the usefulness of this approach that education managers do not usually think of the formulation of their policy problems in terms of optimization models. One implication of the way the problem of adequacy has been formulated here is that it suggests that education managers and policy makers make much more explicit use of these models in thinking through the various implications of complex policy problems.

A particular limitation of linear programming models, however, is the fact that they are incapable, without modification, of handling a situation in which several objectives are simultaneously sought and in which these objectives have differential ranking, and also could conflict one with the other. An example might suffice to clarify the point being made here. We might assume that an education manager, say a superintendent, faces severe budgetary limitations because of public referendum on spending levels. We might assume also that these limitations require per-pupil spending in the district to be reduced beyond levels reached in the previous year. The implications of these limitations include the possibility of cutting programs, eliminating programs, closing schools, and any of a number of painful retrenchment actions, singly or in combination. The superintendent, however, is quite concerned, due to the requirement that quality not be sacrificed, and that some rough order of priority is maintained in carrying out the decision to reduce the scale of school district operations.

It is conceivable that many of the available objectives could conflict with each other. It is also clear that in the absense of some notion as to which are prize objectives from which are not, high-ordered goals may not be achieved in retrenchment if explicit attention is not given to identifying what in fact they are. Such a scenario is clearly characterized by very difficult problems of conflict resolution, and it calls for a somewhat more effective method of resource allocation than straightforward linear programming.

In this latter setting, the approach to the derivation of optimum results readily admits that these objectives may be incompatible, and also that it might be more realistic to opt for a solution that allows for some positive or negative deviations from strictly determined levels of objectives. In this context, goal programming turns out be be a more appealing policy framework, in that it admits of outcome levels that are "satisfactory" rather than strictly maximal or minimal. I turn now to a statement of the goal programming model, and to the possibility of implementing the notion of adequacy derived above, through goal programming. To motivate the discussion, I extend the explanation of the example above.

The superintendent wishes to satisfy the requirements of the spending limitation, but without sacrificing quality of programs and without closing too many buildings or laying off many teachers. The superintendent also wishes to keep student/teacher ratios from getting too large. Certain subjects must be taught, and exposure to experienced teachers is a high-priority goal. Although this does not necessarily exhaust the totality of possible objectives faced by the superintendent, it gives some indication of what these goals might be and therefore the need to begin a process of identifying and of ranking these goals so as to achieve truly desirable results.

Other goals might conceivably include the need to upgrade students' skills in various areas, to aim for cognitive gains of at least some minimal level in all subject areas irrespective of prior conditions of preparation, and to have all students exposed as much as possible to new technologies--as for example, using computers and writing papers with word-processors.

The superintendent might have in mind the possibility that students could exceed levels of cognitive gain, but that they should not fall below a set level that has been decided upon--say, increasing reading scores by a certain percentage. The school system may also be allowed to exceed budget by only a small amount, but it could liberally underspend. Other goals that could be exceeded include the number of hours students spend with experienced teachers, but this might be costly if indulged too much; and having students exposed to new technologies, although overexposure again begins to get quite costly very soon. What is important in all of this is that, attached to each goal, is some area of slack, either in the positive direction or in the negative direction. These goals, however, are ranked, some being clearly more important than others. The basic problem facing the superintendent is this: What should be done so as to satisfy all the competing claims, including those that specify the important priority ordering of the goals? It is in this setting that goal programming performs well, providing as it does an appropriate and efficient means of accomplishing what seems like an impossible task. The following section sets out more formally the structure of the problem spelled out here.

A Goal Programming Model[*]

The typical goal programming model can be set out algebraically as follows:

$$\text{Min:} \quad \sum P_i \, (y_i^+ + y_i^-) \qquad (1)$$

$$\text{Subject to:} \quad (\, Ax, \;\; y \,) = G \qquad (2)$$

$$x, \; y_i^+, \; y_i^- \geq 0 \qquad (3)$$

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[*] The reader may skip the first four paragraphs of this section without loss of continuity.

In the above formulation, A is a matrix of technical coefficients, x is a vector of decision variables, and y is a matrix of positive and negative deviation variables $(-y_i^+ + y_i^-)$. G is a vector of goal values. P_i represents a priority level parameter.

It is presumed that rather than operating with only one goal, all others being placed in the constraint set (and operating there as part of the total environment of the decision problem), that decision-makers have a multiplicity of objectives, all of which are important to some degree and thus, need to be explicitly considered in the decision-making process. Additionally, the goals of the decision-maker are now part of the constraint set, but now are differentially ranked and represent the priority structure with respect to all the explicitly identified goals. This is accomplished by including in the objective function a set of weights associated with each goal. Such an objective function is now written as a function of ordinally ranked deviation variables, y^+ and y^-, and these variables are included or not, depending on whether overattainment, underattainment or exact attainment of goals is satisfactory. Goals which have low priority, in the sense of having a lower ranked P_i as coefficient are considered only after higher-ordered goals have been satisfied, and for goals having the same priority ranking the weights attached will determine which is considered first. Finally, the objective of the exercise is to minimize the sum of positive and negative deviations from specific goal levels.

It is within this decision framework that allows for the underattainment or overattainment of objectives (however, now within satisfactory bounds and in a context which allows differential ranking of these goals), that I wish to frame the implementation of an educational policy informed by the notion of minimum adequacy, as conceived of earlier.

Mathematical programming has been extensively applied to decision making in education, but goal programming applied to education finance is less plentiful. E. Cohn and J. Michael Morgan constructed a goal programming model for improving resource allocation within school districts (Cohn and Morgan, 1978), while Cohn has completed the only model to my knowledge, that uses goal programming in school finance (Cohn, in press).

It is proposed that each state will develop its own goal programming model and that this model will reflect, in the selection of those parts of the education policy decision that represent statewide versus local choices, the policy position with respect to the importance of local decision-making. A set of objectives could be identified and ranked on a statewide basis to represent the combined judgments of teachers, principals, administrators, parents, and taxpayers with respect to education outcomes deemed desirable. Cohn and his associates have done this for Pennsylvania. A total of twelve goals was selected, and these included traditionally slippery concepts such as self-concept, citizenship, creativity potential, and readiness for change. The production function of education in this model is a reduced-form production function, and it incorporates the effects of decision variables which are under the command of the policy-makers as well as those which are not.*

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*The notion of a production function essentially captures the relationship between inputs and outputs in a production system. Once outputs and inputs are identified for schools, it becomes possible to then try to ascertain how these are related in the educational processes of a school.

A critical component of the model being proposed here is the set of goal statements that constitute the primary exogenous variables in this system. It appears minimally necessary that the output indicators selected should be ones that capture the essence of schooling objectives and can also be shown to be related to the ultimate objectives increasingly sought by the courts. One way, although not the only one, in which to begin defining these would be to isolate those characteristics of the period that above all else appear to embody that period's essential spirit. This period's essential character appears to be best exemplified bv a notion of modernitv. a spirit of modern consciousness, associated with the explosion of computer and information technologies and the organizational implications of their deployment and use in the control and strategic functions of modern bureacracies. Four defining characteristics of such modern consciousness are identified by Brigitte Berger: these are (1) multidimensionality, (2) abstraction, (3) componentiality, and (4) future orientation (Berger, 1978). This is not the place to launch a full-scale discussion of curriculum philosophy, but if the above four characteristics embody the essence of modern consciousness, school output, through students, ought to be identified at least in terms of the achievement of competencies in these areas, to some minimal level, at the time of school leaving.

Additionally, if it is unlikely to achieve these minimal levels at school leaving without prior attention to them throughout the full span of school attendance, then setting schooling output minimal levels in terms of these broader goals (call them "ideal" goals), has decisive implications for curriculum reform throughout the entire range of schooling.

Importantly, school finance considerations can be easily incorporated in such a model, as was shown very well by the earlier work done by James Bruno, but now such considerations would be enlarged to accommodate the requirement of minimum adequacy just explicated. Recall that minimum adequacy as derived above is now defined as reflecting the inclusion of a typical equalization program, need factors relevant to a specific district or even schools within a district, and differential costs. The goal programming model would be run, given objectives defined in terms of agreed-upon levels of appropriate best-practice benchmarks. Policy and institutional limitations would be incorporated, and alternative final policy choices would be derived from simulation exercises using the model.

A typical solution from the above goal programming model would identify "optimal" levels of the policy goals, along with necessary deviations of these goals from specified levels. If all undesirable deviations (those included in the objective function to be minimized) have zero values in the optimal solution, then all desired results are achieved; if some at least have positive values, then goals are not fully achieved. Required state funding emerges in this type of model by deriving the weighted sum of the values of all program inputs and subtracting locally generated funds. Cohn provided an illustration of this (Cohn, in press). Minimum adequacy, as defined in this paper, has been achieved if a policy determined level of educational output has been attained in the context of a fiscal equalization program, due regard being given to student need characteristics and resource cost differentials for districts or even schools.

The construction of a model consistent with the above formulation of the problem of implementation of adequacy would clearly be a major undertaking. In principle, it can be done. The data requirements would be great but not insurmountable. Data revision and model changes would take place at times dictated by new policy initiatives, but once the basic model is constructed for use at the state level the additional costs for revision should be only marginal.

Conclusion

That this model accomplishes the task set out earlier is clear. School finance inputs in the form of expenditure levels get determined endogenously, and changes in these input levels can be readily traced by varying output-side parameters and observing the effects on input requirements. Rankings of preemptive goals can also be changed and their effect shown. A significant reformulation of equity goals is accomplished in this model, since equity is now defined in terms of outcomes rather than inputs. In this sense, fundamental educational reform drives finance reform. This appears to be a preferable methodology. Financial implications are clearly a function of the simultaneous working of a whole range of policy and technical considerations in a highly complex combinatorial manner. They therefore are derived only by setting out, in each case, the critical levels of the education objectives and then seeing what is implied by these choices.

References

Bell, D. "Meritocracy and Equality," The Public Interest, No. 29 (Fall 1972), 29-68.

Berger, B. "A New Interpretation of the I-Q Controversy," The Public Interest, No. 50 (Winter 1978), 29-44.

Brookover, W.B., and L. Lezotte. "Educational Equity: A Democratic Principle at a Crossroads," The Urban Review, Vol. 13, No. 2 (Summer 1981), 65-71.

Brookover, W.B., et al. School Social Systems and Student Achievement. New York, J.F. Bergin, 1979.

Bruno, J.E. "A Mathematical Programming Approach to School Finance," Socio-Economic Planning Sciences, Vol. 3 (1969), 1-12.

Chambers, J.G. "The Development of a Cost of Education Index: Some Empirical Estimates and Policy Issues," Journal of Education Finance, 5 (Winter 1980), 262-281.

Cohn, E. "Combining Efficiency and Equity: Optimization of Resource Allocation in State School Systems," to be published in Walter W. McMahon and Terry G. Geske (eds.) Toward Efficiency and Equity in Educational Finance.

Cohn, E., and J. Morgan. "Improving Resource Allocation Within School Districts: A Goal Programming Approach," Journal of Education Finance, 4 (Summer 1978), 89-104.

Comer, J.P. School Power. New York, The Free Press, 1980.

Lezotte, L., et al. Schooling Learning Climate and Student Achievement. Tallahasse, Fl.: SSTA Center, Florida State University, 1980.

Phillips, D. "The Equality Debate," Theory and Society, Vol. 4, No. 2 (Summer 1977), 247-272.

Thomas, J.A. "Resource Allocation in School Districts and Classrooms," Journal of Education Finance, 5 (Winter 1980), 246-261.

Ward, M. "W. Virginia Court Seeks to Define School Quality," Education Week, Dec. 7, 1981.

Wise, A. "Minimum Educational Adequacy: Beyond School Finance Reform," Journal of Education Finance, Vol. 1, (Spring 1976), 468-483.

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EDUCATIONAL ADEQUACY: A STATE PERSPECTIVE

Joseph M. Cronin

What level of finance for education is adequate? Definitions have shifted, but the level usuaully escalates in each decade.

Historian of education Patricia Graham reports that at the time of the American Revolution minimal proof that one was not illiterate was considered adequate; the ability to write one's name defined basic literacy in that era. Then for many years a fourth-grade education was deemed adequate (Graham, 1981).

The Industrial Revolution raised expectations toward completion of the eigth grade, with some provision for industrial and mechanical education. Vocational education did not really blossom until the World War I era.

Ralph Tyler reminds us of the accelerating need in this century for young people to complete high school. He notes that only 10 percent graduated from high school before World War I, 25 percent during the Great Depression, 50 percent by the end of World War II (Tyler, 1981). By 1960 President John Kennedy observed that only 75 percent of U.S. youth finished twelfth grade; he declared that the "dropout rate" was a serious national problem and asked all educators to help solve it.

During the 1970s most states pressed to enforce a minimum school completion age of 16 as a necessary condition for citizenship, employability, and survival. The larger states, including California, tried to encourage attendance through age 18, with graduation from high school the desired standard. Strong incentives to attend a low-tuition community college for two years were provided. Persons aiming for many skilled or semi-skilled occupations--e.g., in the health field, mechanical repair, computer technology--were encouraged to attend school for fourteen years.

Thus the definitions of "adequacy" change over time and with the complexity of the economy. What will be adequate for the 1980s? For the 1990s?

Society will continue to grow more technical, more complex. All citizens must be able to understand economic phenomena: inflation, pollution, energy shortages, consumer standards, taxation, social security and medical care, citizen petitions and referenda, court decisions, world trade, etc.

The workplace grows more technological--even those tasks and roles once considered a safe refuge for the undereducated: the military, the postal service, the factory, the farm. Computers, robotry, and other engines of productivity make old thresholds of employability too low, old notions of educational adequacy obsolete. Education adequate for the 1970s will probably fail to carry the work force into the 1990s.

This paper reflects my experience as a former chief state school officer (Illinois, 1975-80) and a one-time cabinet officer for education (Massachusetts, 1971-75). Issues of political feasibility and of diverse state and local expectations will therefore dominate my perspective.

Varying conceptions of adequacy--of education and educational finance--vary not only temporally but geographically. Aspirations and expectations differ widely from community to community. I don't believe there can be a consensus in the 1980s and I offer these examples of competing views of adequacy.

Community X is an affluent suburb in which 90 percent of the homeowners and taxpayers want virtually all of their children to go on to college, preferably a four-year college of recognized reputation. If a child is mentally retarded, emotionally disturbed, or even mildly dyslexic, those parents want the best of educational care--no matter how expensive. If a child is gifted, the parents may well seek enrichment programs at the elementary school level and Advanced Placement courses in the senior high school. For example, the high school biology department at the Lexington High School in Massachusetts has facilities and faculty comparable to those of many small colleges. But the townspeople, many of them scientists, engineers, and university professors, find the science program barely adequate and, in some instances, pursue a private school option for their child, searching for a school with even smaller classes and more laboratory time.

Community Y is a working-class city whose principal industry is the manufacture of automobile parts. The average level of education of the adult work force is tenth grade. Parents expect and hope that their children will graduate from high school. Twenty percent will go to college or nursing school. Another 20 percent will spend one or more semesters at a nearby public community college before taking a job. Sixty percent will attend no college at all. Until 1979 the city was reasonably prosperous and most families stayed in the area, but some young people are now leaving for the Sun Belt.

Community Z is a luxury resort. But the major taxes are paid by people who have second homes or stay for the season at one of the several hotels. Employment is seasonal and requires few skills. There is a long lay-off period during which workers collect unemployment checks. The school system offers basic courses, with few electives. Forty percent of the students drop out before graduation. Only 15 percent go on to any type of college. The citizens themselves regularly vote against proposals to raise school taxes or to reform the out-of-date school facilities. The situation is unlikely to change unless state or federal laws require a higher standard.

These brief community profiles illustrate the problem of defining educational adequacy. People need more or less education, depending on community aspirations, their parents' expectations, and their own career aspirations and willingness to move. What is adequate for one community or one family will be substandard for another.

If adequacy can be defined, then there are at least three levels of educational adequacy about which lawmakers can argue, as follows:

1. One definition of basic education begins with the widespread consensus that reading, writing, and arithmetic shall be taught in the schools. These subjects are what people generally mean when they are arguing for a return to "the basics" in elementary and secondary schools. Most citizens would agree to include a requirement that all students take a course in United States history and at least one in science. There is no widespread consensus on other topics other than

good citizenship and some basic precepts of health and safety.

2. A definition of basic education offered by the Council on Basic Education in Washington, D.C., for more than a decade has included reading-writing-arithmetic and the study of history, government, science, foreign languages, art, and music. This is an important list of subjects because it respects the fact that schools are important vehicles for transmitting the tosal culture, which includes music, art, and languages other than the native tongue. The Council on Basic Education believes that these latter subjects are important ingredients of civilization and that the schools have a major responsibility to teach them.

3. The third definition includes all of the above subjects plus several clusters of educational programs, such as (a) special education, in particular the education of handicapped and gifted persons; (b) vocational education; and (c) responsibility education. Under federal law the handicapped are entitled to individualized education programs in which the teachers, the parents, and certain specialists agree on the diagnosis and the remedy of handicaps varying from physical disabilities to mental or emotional problems. The educational needs may include various kinds of speech or physical therapy, or other tutorial or individualized attention. It is possible that gifted students—defined as those with IQs above 140 or 130 or those who perform well on aptitude tests (e.g., in music)—may also in the future be entitled to individualized programs. For example, a gifted musician might practice for hours alone or with a special teacher. So also might students gifted in math or science have individualized programs allowing them to move far ahead of the rest of the students in their age group, a provision that only a few public school systems now make.

Concerning vocational education, states as well as the federal government have concluded in this century that it is important to prepare students for certain career specialties, beginning with agriculture and commerce, but more recently including computer use, health, and other areas in which some kind of occupational or vocational training seems useful and satisfies an employment demand. Until recently it was thought that boys might specialize in any of ten or twenty career areas and that women might study home economics, nursing, or clerical work and related commercial subjects. Now it is written that women are entitled to as many options as are the young men. School systems, beginning at the secondary level, must include in a definition of "full program" the variety of vocational education courses that metropolitan areas and their employers require.

It is important to prepare students not only for a career but for full citizenship in the community, the nation, and the world; this type of preparation we decided in Illinois to call Responsibility Education. Many groups have labored to define a variety of educational programs that fit under the general topic of "responsibility education." Such programs may include (a) economic education: a more fundamental understanding of the way in which capitalistic society works—how the economy is regulated, how the work force is organized, how money and banking works, and how various services are provided; (b) law education: a study of the rights and responsibilities of citizens both personally and in a corporate sense; (c) family life, including a discussion of marriage and family responsibilities; (d) global education: a study not only of world history and geography but of current international trends, with an attempt to foster respect for other cultures; (e) citizenship education, including awareness of political responsibilities and discussion of issues relating to survival of communities and the nation; and (f) moral education: the study of contemporary values, issues, and controversies, with assistance in defining proper behavior and personal responsibility.

Many of these latter programs are relatively new, and a consensus does not yet exist; but all of them are potentially the proper province of the schools. Several of them, such as education about moral values, can generate serious controversy in a community and on occasion have lead to the withdrawal of children from the public schools by outraged families.

The Amish community illustrates the way in which the definition of educational adequacy can be controversial. The Amish traditionally believe that education is only needed up to a certain level (early teens), and that preparation for the mechanized, industrialized world is precisely what should not be available to Amish and Mennonite farm youth. A second example would be the development of Christian schools in many states during the last decade as a response to the "Godless nature" of the public schools. Several fundamentalist groups want their children to have the advantages of an "adequate" moral education—specifically, one rooted in the Christian Bible.

Controversies over sex education in the schools and about the selection of library books have been current for many, many years. They underscore the difficulty of achieving political consensus on what kind of education, and what kind of educational materials, are adequate or appropriate for the elementary and secondary schools.

Are Current Expenditures for Education Adequate?

Most communities offer reading, writing, and arithmetic in their schools; hence at least nominally the most narrowly defined version of education is provided. But it isn't truly satisfactory or adequate, for two reasons.

First, the teachers are recruited and paid on a bargain-basement basis in thousands of American communities. As late as 1980, salary schedules in some Midwestern communities began at $9,000 and ended at $16,000. These salaries mean that a teacher who gets married and starts a family must almost certainly move to a community offering better pay or leave the profession. The only social service profession requiring a baccalaureate degree and paying less is that of the welfare worker. Communities offering such salaries, and there are thousands of them, are fortunate indeed when they can retain competent teachers. Able women, often the wives of farmers or professionals, have accepted these assignments in the past. Only teaching, nursing, or clerical jobs were available. But now women are welcomed into banking, real estate, computer use, and other fields once dominated by men. This trend impairs the ability of communities to hold teaching salaries down. A high turnover rate of teachers, due in large part to low salaries, makes compliance with professional standards of adequacy very difficult.

The second reason why the education provided in most communities is inadequate is that the teaching day and teaching year are too short. Many states require only five or five and one-half hours per day in school over a 175-day school year. John Goodlad's most recent study of American schools criticizes long lunch and recess periods that rob children of needed instructional time (Goodlad). Many knowledgeable educators have concluded that more "time on task" is required for mastery of skills. Too few schools meet Goodlad's specification of at least twenty-five hours per week of instructional time (not time in the school building) as minimally adequate.

Clearly, no definition of educational adequacy can be completed without acknowledging the need for a well-trained, experienced teacher with twenty-five hours or more of classroom learning time for the pupils.

The Council for Basic Education definition is attainable in many schools, but in most American high schools enrollments in foreign languages have declined by 20 percent or more during the 1970s. Congressman Paul Simon's report on The Tongue-Tied Americans documents the decline of language requirements in colleges and high schools (Simon, 1980). Science instruction is also on the wane. For example, far fewer high school seniors study physics than was the case in the early 1960s. Increasingly, science and math teachers are attracted to better-paying jobs in business and industry.

The third plateau in our definition of educational adequacy--a full array of special education, vocational education, and responsibility education--has benefited enormously from lawsuits and from federal and state stimulation, including categorical grants-in-aid. Nationally, since the implementation of P.L. 89-313 and 94-142, The Education of All Handicapped Children Act, in 1975, the U.S. Office of Education reports that the number of students served grew from 3,721,827 in the school year 1976-77 (U.S. Department of Health, Education and Welfare, U.S. Office of Education, 1979) to 4,177,945 in the school year 1980-81 (U.S. Department of Health, Education and Welfare, U.S. Office of Education, 1981). It is estimated that, statewide, as many as 13 percent of all schoolchildren may need some help for at least a partial learning disability.

Of course the gifted child is rarely provided for. Only a handful of states --North Carolina is one--have special schools or summer programs to stimulate or encourage academically talented children. A few cities, notably New York, offer specialized high school work in science or art. But this is the exception. Rampant egalitarianism has eclipsed the provision of opportunity for excellence, despite John Gardner's conviction that the two can co-exist (Gardner, 1961).

The amount of economics education, law education, and family education available to American students is woefully inadequate. Materials are few, and teacher training in the social studies traditionally emphasizes history and perhaps political science. Almost three-fourths of American parents want sex and family life education taught in the schools (Gallup-Phi Delta Kappa Poll, 1981) but it is rarely taught well, despite the obvious social indicators of need (illegitimacy, venereal disease, divorce, etc.). Various councils and associations will continue to press for teacher training, curriculum development, and advocacy for improving programs. But the necessary consensus and adult awareness are not yet highly developed among the citizenry. Without federal support, the new definitions of adequacy simply languish for the moment.

Are Funds Adequate and the Problem Equity?

Equity remains a problem. The most recent (1980) state tax limit referendum, Massachusetts Proposition 2 1/2, nullified a very progressive 1978 reallocation of state finances for schools. The new mandate required the oldest and poorest Massachusetts cities to lay off hundreds of policemen, firemen, and schoolteachers. Well-to-do towns such as Dover, with a low tax base and few children to educate, had hardly any reductions in service or staff.

Almost every state has at least one community with a power plant or other utility that provides substantial taxable wealth. Schools in such communities have few financial problems. But next door there may be a district with an inadequate tax base. Such is one consequence of reliance on the property tax: School districts do not share taxable property with others in a county, region, or state. In some cases districts are simply too small to have a tax base that would permit support of a full curriculum.

So equity remains a serious problem or set of problems. The rhetoric of the 1980s will move away from educational equity towards the goal of financing educational excellence, according to trend-setters and close observers. The problems themselves, however, will not go away. A brief summary:

1. Tax distribution and state formula equity continue to be problematic. Even in states that have "reformed" their school aid formulas, there usually remain tax havens or islands of wealth, on the one hand, and pockets of poverty on the other. That is, communities may be eligible for maximum state aid but rarely get as much as their educationally disadvantaged citizens need in order to learn basic skills. State aid formulas tend to reduce the effects of disparate wealth, but they hardly ever eliminate inequities.

2. Handicapped students pose an additional problem of equity. In the past, a few districts were wealthy enough and sensitive enough to offer a full array of educational, counseling, and social services to handicapped persons aged 3 to 18 (or 1-21), but most were not. Federal aid to the handicapped has lagged behind expectations and congressional authorizations. States have substantially improved their support in recent years, but handicapped person advocacy groups (e.g., the Council for Exceptional Children) do not believe all states and all communities have attained full service adequacy.

3. Sex equity is an issue not only in employment (of administrators, for example) and physical education, but in vocational course offerings and facilities. Progress since 1976 has been substantial, but many schools lack gymnasiums and work stations to achieve equality of programs for young men and women. Money is the problem.

4. Race equity or desegregation is a controversial and rather expensive but—under the Constitution—necessary component of any equity plan. The Emergency School Assistance Act and other title programs designed to help desegregating schools was sharply cut for 1981-82. Many districts are trying to set up magnet schools (which cost money), pay for transportation and auxiliary services, and otherwise finance programs designed to integrate the races. Perhaps one in three cities has developed adequate desegregation plans, some of which must be redesigned or updated periodically. More remains to be done, not only in the South but in the West, Midwest, and Northeast.

The Measurement of Adequacy

Two notions of adequacy require measurement. Current measures are too limited and narrow.

1. Educational adequacy at national and state levels is appraised too often by means of a set of test scores, such as the Scholastic Aptitude Test or the Florida State Test of Educational Achievement. Generally, these tests purport to measure reading, writing, and mathematical skills; sometimes it is just reading and math.

Is that all there is to education? To be sure, the educated citizen must read and calculate. But these are not "adequate" to maintain the fabric of civilization, sustain the republic, or allow the individual to raise a family.

Consider what a first-rate college wants to know about high school seniors applying for admission: not only test scores but a full transcript of marks in all courses. Also, the applicant must supply references from those who can attest to the person's character. A list of extracurricular activities and community service is expected. Many colleges require submission of one or more written essays and follow this with a personal interview. Specialized colleges may require a portfolio of sketches, photographs, or tapes of music sung or played. The measurement of educational adequacy—even the readiness of an individual to profit from more education—is therefore multi-dimensional and hardly susceptible to expression as a single set of standard scores.

2. The adequacy of educational finance can be measured in part by indications of inadequacy or insolvency.

When Chicago schools went to the brink of bankruptcy in December, 1979, Illinois legislators and State Board of Education members discovered the need for a financial barometer that would predict economic turbulence (Cronin, 1980). Many states allow borrowing to cover the cash flow needs of a school system; financial problems, then, are indicated by the frequency and total amount or percentage of borrowing for current expenditures.

Of course, financial inadequacy can arise out of taxpayer truculence, the reluctance to look favorably upon proposals to raise school taxes or approve an education budget. As in Florida, elderly voters may vote no on education tax issues on the ground that they have already paid for education in some other state. Or a school district may not cut costs in periods of enrollment decline and potential retrenchment. These phenomena account for much of the difficulties in the older, larger cities where public employee unions and loyalty to underutilized schools remain strong.

So there is no measure of financial adequacy, or even an agreed-upon definition of fiscal adequacy.

Furthermore, school districts with a high proportion of handicapped children or of poor children would argue against any simple indicator. Perhaps what is needed is a "profile" of educational adequacy and price tags for each program. Florida, with an elaborate system of weighted educational costs and a correction factor for cost-of-living variations across county lines, may come the closest to providing an indicator of financial cost that is useful in constructing such a profile of financial adequacy.

Certification of Adequacy

Welfare policy is structured so that a family of four can be at least minimally provided for with a basic grant of X dollars per month. That figure is periodically debated as to its adequacy—and the figure is often raised.

Higher education institutions, especially private colleges, annually calculate the cost of education as part of the process of setting tuition policy and guiding financial aid officers in their decisions about scholarships, loans, and work-study programs.

In the education of the handicapped, Massachusetts has a Rate Setting Review Board and Illinois a Governor's Purchased Care Advisory Board. These boards calculate or evaluate the cost of expensive, complicated residential school placements on a group or case-by-case basis.

The precedents are numerous, and yet the pattern is not to set a dollar amount—by school or school district—as a yardstick of educational or financial adequacy. At times this has been tried: A state school aid formula is tied to a basic grant per classroom or minimum salary levels for teachers are subsidized. But the adequacy concept usually lacks any rigorous definition; these have simply been poor surrogates for adequacy. Few authorities would recommend them.

Are test scores responsible measures in the determination of adequacy? Several states are not supporting or will in the future support this notion, largely because a judge or state legislature directed educators to administer tests periodically to reassure the public that education is in fact taking place and is adequately monitored.

I object to the use of any single indicator of educational adequacy, but in particular test scores, on these grounds:

1. The tests in many cases are imposed without a comprehensive review of the objective of the school and the necessary curriculum;
2. tests generally cover only a portion of what the schools and teachers try to accomplish;
3. some students perform badly in test situations even though they may have acquired the requisite skills or knowledge;
4. mean scores tend to mask the accomplishments of individuals, tend to be used to demonstrate minimum (not maximum) progress, and suggest a simple way to describe a very complex phenomenon: learning.

As H.L. Mencken once said, "For every complex problem there is a simple solution—and it is always wrong." So it is with test results as an indicator of adequacy.

While test scores are useful in diagnosing the strengths and weaknesses of a school or of a curriculum, test results should not be used to allocate dollars or describe some "common denominator" of educational adequacy. If money were given to low-achieving schools, the achieving schools might be penalized. If more money were given to schools improving their test scores, the aggressive schools would devote too much time to the skills of taking tests or the narrow band of skills measured by the tests.

These verdicts are frustrating to legislators. Arthur Wise, in his splendid volume, Legislated Learning, explains why it is so difficult to pass a law and, soon after, expand the productivity of the classroom (Wise, 1979). It is easy to agree to spend X amount of dollars on education, but extremely difficult to specify for all children the numbers of words per minute they must type, the speed at which they must solve an algebraic equation, or the percentage of William Shakespeare's plays they must comprehend.

Evidence of Inadequacy

Examples of inadequate education and insufficient support of education abound:

1. The oversupply of teachers in the 1975-80 period will in certain states turn into potentially severe shortages from 1985 through 1990--especially in math and science but also in industrial arts and even in English. Annual surveys of teacher supply and demand by the Illinois State Board of Education document the surpluses of the early 1970s and the way in which the shortfalls of the 1980s will become evident (Illinois State Board of Education, 1980). Of course "reductions in force" in school districts with declining enrollment and the rigidities of teacher salary schedules serve to discourage prospective teachers. However, teachers generally are paid 20 percent below other college graduates and experience a higher dropout rate than most social service occupations and professions. Also, the low SAT scores of teachers reflect the low value society generally, and school boards in particular, place on their services. You get what you pay for, and salary schedules of $9,000 to $16,000 will neither attract nor hold enough able teachers.

2. School facilities in many older communities are old and unsuited to a modern curriculum. Each year many schoolhouses in Illinois must be condemned by state or county officials before economy-minded school boards will agree to close them. A recent Illinois Board of Education report recommended more than $100 million in new construction and rehabilitation for safety as well as educational reasons. Regrettably, the board's weak political support in this era of retrenchment, plus outrageous bond prices, make it impossible to win the approval of a state school construction bond issue.

3. School equipment, furnishings, and laboratory supplies in rural schools and some cities are far from adequate. The quality and quantity of science equipment and foreign language labs was highest in the period from 1958 to 1965, when the federal government administered the National Defense Education Act. In recent years these funds and the priority have lagged behind need. So has the U.S. production of scientists and enrollments in foreign language courses.

The 1980s will witness an explosion of school programs employing the computer as a resource. The most favored suburbs and a few cities already provide this tool for computation and learning. However, thousands of rural and poor city schools will greet 1990 without this technology, partly because of the tremendously decentralized nature of American education and partly because of inadequate funds for new learning tools and instructional aids.

4. Program choices have suffered as a result of failed tax referenda locally and because of state limits on taxation for school purposes. Many districts cannot offer third- or fourth-year French classes or have had to cancel them, for example. Twenty-five years ago James B. Conant found hundreds of high schools that did not offer chemistry or biology or physics (Conant, 1959). Were he alive today he would report, sadly, no change in too many of those secondary schools.

Pupil Differences and Program Cost Variations

State and local administrators discover very early in their careers the cost variations between programs for different categories of children. A half-time kindergarten program costs less than a high school English class, for example. An advanced science class or auto mechanics course costs more because of equipment, supplies, and the limited number of student work stations.

The state of Florida was among the first to establish a lengthy list of state aid weightings for types of pupils served. Legislators recognized that a mildly handicapped child might need services that cost 1.75 percent as much as those adequate for a "normal" child. So the state calculated that figure into the formula. A severely handicapped child might require a much smaller class and much more attention, costing four or five times as much as the regular class.

Some states estimate that a gifted child program costs 10 percent more than the regular program, hence assign a 1.1 percent weighting. Career education at the elementary or junior high level can cost 1.1 percent also. Vocational courses can cost 1.25 percent or more if highly technical or advanced. Bilingual education programs also can be weighted.

Transportation costs vary by pupil characteristic. The Illinois state budget includes enough money to reimburse most school districts for 80 percent of regular school transportation costs, which run from $100 to $150 per student per year. But the cost of transporting handicapped children in specially equipped vans can cost from $500 to $1,200 per student per year. Some children need an aide to accompany them on the bus or van, adding greatly to the expense.

Other pupil characteristics dictate varying levels of cost per program, depending upon the age, type, and condition of the pupil. In fact, if all programs were individualized, Illinois would have two million definitions of adequacy, one for each public and private school pupil.

Differential Cost and Effort

Does the issue of financing adequate education require attention to such issues as (1) state/local ability to pay, (2) state/local tax efforts, (3) local cost difference, and (4) urban or rural differences?

One shortcoming of a school finance structure so heavily dependent on local resources is the tremendous variation in local wealth and taxable resources. Many courts and state legislatures try to "equalize" resources by recognizing the greater need of poor communities for additional state dollars. Generally, the state aid formulas are "equalizing" in that they allocate less money per student to the wealthy community and more to schools with less financial ability.

"Effort," ordinarily expressed in the form of a tax rate commitment to education, is allegedly related to "adequacy." Again, most school aid formulas require a minimum tax effort to qualify for any state funds. In certain states, such as Wisconsin and Rhode Island, formulas have "rewarded" effort by giving some additional dollars to school districts that raise school taxes to or above a certain threshold.

Just as serious are the unresolved issues of between-state variations in fiscal ability and tax effort. Many advisory commissions, national and state, have tried to prod states into developing a balanced tax system using modern approaches. As of 1980, approximately forty states used sales and income taxes, but one state in five still lacks a modern tax structure. As a consequence, a few state governments raise as little as 10 percent of the money needed for education (New Hampshire, 6 percent), while several others raise 60 percent or more of the school aid (New Mexico, Kentucky, and West Virginia) (ECS Report, 1981).

Local costs vary enormously according to the level of teacher salaries, size of class, number of courses offered, sports, activities, field trips, and auxiliary services. Costs range from a high of $4,000 in expensive suburban high schools to below $1,000 per student per year in some rural elementary schools.

Urban schools may be the most expensive of all. City schools often require more security, more complicated maintenance, and higher pay for teachers and administrators because of higher living costs in cities. These higher costs are part of the "municipal overburden" phenomenon.

A few rural schools--in Appalachia or Alaska--cost more because of remoteness and, as in Alaska, the need of a school district to pay for the lodging of a teacher near the school. Also, per-pupil costs may be high because of the smaller number of students attending the school.

The schools at one end of a state may cost less than schools at the other end. In Illinois costs rise as one goes north toward Chicago and the "Gold Coast" suburbs. In Florida costs increase in the opposite direction, moving toward Dade and other counties in the more popular resort areas. Florida has legislated a cost-of-living factor in the state school aid formula to correct for within-state variations, which can be as great as 15 percent.

Any discussion of adequacy, therefore, must discuss the variations in geography, state taxation and allocation structure, rural-suburban-urban differences, and other factors affecting costs. As indicated early in this paper, variations in parent or consumer choice may be very compelling.

Who Should Pay, and How Much?

What level of government should assume responsibility for financing education?

During the 1960s the National Education Association proposed a tripartite responsibility for education costs—one-third local, one-third state, one-third federal. That view, balanced as it may appear, will not work and is not appropriate for these reasons:

1. The state share, for many years 40 percent of the cost of education, is now moving up to the 50 percent level. Some states pay from 60 to 70 percent of total public education costs.

2. The federal share, despite far-reaching legislation, has not yet accounted for as much as 10 percent of the total costs. The U.S. Constitution, by making no mention of education, leaves it to the local and state governments (it is practically always mentioned in state constitutions).

3. The local share has been falling slowly, from 60 percent to 40 percent over the course of thirty years. Voters now want to constrain use of the property tax and have set maximum limits or percentages of property wealth to be taxed. Liberals deplore the regressive character of most property taxes. An increase in the percentage of citizens not using the schools bodes ill for future local initiatives in many states and communities.

In the late 1960s James B. Conant and New York State Commissioner of Education James E. Allen (later U.S. commissioner of education) called for full state financing of education. The rationale behind their call includes these points:

1. Most states now have a better balance of broad-based taxes, generally sales and income (forty states), than do the local governments.

2. States historically create the framework for a system of free public schools, certify the teachers and administrators, and generally take their education responsibilities seriously.

3. States spend from 25 percent to 60 percent of their resources on education. The federal government must worry about defense, foreign relations, and health and human services. It has never aspired to pay for "senior partner" status in education.

However, the federal role should not be minimized. For now it is enough to conclude that the states should bear the major or central responsibility for the adequate financing of education.

Past Financial Trends

We can learn from the past these three broad generalizations:

1. Rich communities want to stay rich. Thus they want their school systems to remain better supported than the average. They don't want to share their wealth. Long before Proposition 13, people in the Beverly Hills district of California fought against any schemes to reduce their capacity to tax for education or to share property taxes with other Los Angeles area communities. Prosperous Maine communities took the state to court to overturn progressive legislation that had forced property tax surpluses into a common pool of resources to be redistributed to the needy school administrative districts. It appears that human nature is most selfish when property is the vehicle for school support.

2. States vary in their ability to pay for education as well as in their willingness to tax for education purposes. Michigan voters and public officials strongly support public education at all levels through the university, but periodic depressions in the automotive industry bring about lean years for education. Texas, Louisiana, and Alaska will have money for the schools as long as oil supplies hold out and the rest of the nation continues to remain so dependent on oil and natural gas, or for the next decade at least. New Hampshire, on the other hand, is as prosperous as Vermont but much more likely to let property taxes pay for most local school costs rather than join the other states with broad-based tax schemes.

3. Federal support depends on the ideology of the parties in power. Democratic Presidents tend to explore new ways to stimulate and support education, especially through categorical grants. Republican Presidents have tried to decentralize the finances for education. President Richard Nixon's education revenue sharing proposals and policies advocated by President Gerald Ford were designed to stabilize or reduce the federal presence and shift both power and responsibility to the states. The Education Consolidation and Improvement Act of 1981 has the same purpose.

What is disquieting about the trend toward reliance on the states are the phenomena already described:

1. the trend away from reliance on the local property tax;
2. the reduction in state investment in education and the decline in the share of personal income available for public education;
3. the reluctance of the federal government to view education as a major national public investment—other than in certain instances such as vocational education and provisions for support for certain minority institutions.

The Prospects for Funding Education

Others have already detailed the "gloomy scenario" of the 1980s and the less than cheerful prospects for financing education:

1. The "birth dearth" of the 1980s is undermining support of the public schools, especially in the Northeast and Midwest, where the number of high school students will fall by factors of between 25 and 45 percent, a much more abrupt loss than the national figure, which is 10 percent. This phenomenon argues for reduced funding.

2. Rising energy costs and inflation have ratcheted the cost of education, irrespective of direct instructional expenses. As Americans moved to spread-out suburbs, the numbers of students who expect school bus transportation increased. Textbooks and lab instruments are much more expensive. In short, the dollar buys less.

3. The "crisis in confidence" documented by George Gallup has roots in dissatisfaction with test score results and other less tangible evidence of school problems.

4. Public expenditures (state-local) as a percent of personal income dropped between 1976 and 1979 from 20.32 to 19.08 (for example: California--22.06 to 18.83 percent; New York--26.38 to 23.68 percent; Texas--17.39 to 16.52 percent; Minnesota--23.70 to 21.14 percent (Advisory Commission on Intergovernmental Relations, 1981).

5. Pressures to decrease federal aid to education have mounted because of past deficits, threats to the financial integrity of the Social Security system, defense needs, and the massive tax cuts already approved by President Ronald Reagan and Congress.

These events do not augur well for adequate school finance. Nevertheless, there may be some rays of hope:

1. Family size is smaller. The number of children per family to be educated is less, but the demand for education is heightened--especially in the families of college-educated couples, whose numbers have increased.

2. Test scores may have ceased to drop, according to the College Entrance Examination Board, and public confidence likewise may come back (College Entrance Examination Board, 1981). Evidence of gains in elementary school performance may suggest an increase in achievement levels (National Assessment of Educational Progress, 1981). A surge in confidence may be a prerequisite for a surge in support toward "adequacy."

3. National leaders such as Secretary of Education T.H. Bell will focus attention on excellence, quality, the need for instruction in foreign languages, international education, and other high basic skills. Key congressmen and foundations will support a broad definition of the fundamentals.

4. Both business and military leaders recognize the need to finance and/or provide education. They may join with organized labor in calling for improved skill acquisition in school. Business, government, civilian and military services all need a higher level of education and can support a solid, basic education.

5. In addition, some forty states have developed much stronger structures of state revenue and public finances (sales and income taxes) and therefore are in a better position to support education than they were in 1960. Whether they will do so depends on the citizens' values and, in particular, enthusiasm for the education of their children and grandchildren.

The Federal Role in Adequate Finance

So what should the federal government do? What roles or stimulation might be appropriate?

Three federal activities or responsibilities will be explored:

1. Data Collection

Since the 1860s hardly anyone has challenged the federal role as collector and disseminator of data on the condition of education in the United States. Well before the Congress decided to aid any particular programs, there was a consensus that the U.S. commissioner of education ought to know how many schools and school districts existed and should issue periodic reports.

Since 1965 the data-gathering role has become much more important. The federal government is an authoritative source of information on the educational and fiscal health of education. The National Center for Educational Statistics collects and summarizes statistics that can be obtained nowhere else between decennial census reports. Among the data reported:

- the numbers of students, teachers, counselors, and administrators;
- the number of school districts and school buildings;
- the amount of taxes collected for education--local, state, and federal;
- the expenditures of money for education at each level;
- the indicators of educational attainment--i.e., number of graduates; grade level attained by sex, race, and linguistic background.

Also very valuable is the National Assessment of Education Progress (NAEP), which, although administered by the Education Commission of the States (ECS), is paid for by the federal government. The assessment periodically surveys the actual performance of children in elementary, junior high, and senior high schools and samples adult performance in the skills of reading, mathematics, writing, science, and citizenship knowledge. Results are reported by geographical regions and type of community as well as by age group. Over time it is possible to identify trends. For exmple, the NAEP found that the level of scientific knowledge and interest in science in general among 13-year-olds is declining (National Assessment of Educational Progress, 1979) and that the reading levels of blacks in the Southeastern part of the nation (National Assessment of Educational Progress, 1981) rose steadily during the 1970s.

These data and trend information are extremely valuable, and it is useful for the federal government to sponsor these surveys. In fact, several states have begun to use NAEP-type assessment measures to assure the public and their legislatures on the level of educational attainment by state (which NAEP does not report). The federal government has invested heavily in the development of assessment measures and should continue to sponsor and assist the ECS and the individual states with the development and analysis of performance indicators.

It is important for the federal government to measure the levels of adult literacy as well. A few years ago funds for NAEP were cut and with them several of the adult (over 18) measures of educational attainment. Yet American education needs to know over the course of a decade or more what happens to dropouts, to immigrants, and to other adults who for various reasons do not complete high school at the customary age.

2. Stimulator or Incentive Grants

Since 1917 the federal government has sponsored vocational education programs to encourage secondary school courses in agricultural and mechanical subjects. During the 1970s these grants were broadened to include a great variety of technical skills, career education, vocational guidance and placement, and programs to combat discrimination by sex, race, and handicap. Most of the money was allocated on a matching basis that requires the cooperating state to invest at least as many dollars as the federal government in vocational programs.

Other and more recent federal programs make funds available for the educationally disadvantaged, the handicapped, the bilingual, the gifted, and other specialized groups. Many states voluntarily add dollars of their own to assist local schools manage programs that cost more money than the normal programs. The federal role, then, is to stimulate certain service or program expenditures and demonstrate their usefulness.

Let me cite two examples from my term as Illinois state superintendent of education:

1. In Rockford, Illinois, two teachers, one of science and one of social studies, proposed a curriculum unit on nuclear power, its uses, dangers, and limitations. Federal funds can be used to develop up-to-date and innovative approaches to education; hence, they were used to support this project. Curriculum materials were ready for distribution shortly after the highly publicized emergency at Three Mile Island in Pennsylvania.

No state and very little local money is available for curriculum development. If the federal government does not help out, the task of instructional materials development is left almost exclusively to textbook publishers.

2. Although vocational programs at all levels must be open to females, most women still choose traditional nursing and secretarial careers. Few young women pursue vocational training in auto repair, welding, electronics, or mechanics, because of the tradition that only males enter those fields. Therefore, federal vocational funds were used to develop, for Illinois students, guidance materials, including pamphlets and career games (similar to Monopoly), that illustrate how women as well as men can happily pursue careers even in many occupations where sex stereotypes still prevail.

Again, few states or local schools are able to set aside the more than one hundred thousand dollars required for this project, including a proper evaluation of the materials.

Another Issue: The Private Sector

In some Eastern and Midwestern states as many as 14 to 16 percent of the elementary and secondary students attend school in the private sector--i.e., church schools and independent schools. Since 1965 it has been impossible to discuss educational finance without some reference to the rights of children who happen to be attending nonpublic schools. The courts have upheld the legality of programs in which textbooks and transportation assistance are made available to these students, using tax money. Federal funds for the handicapped and for the disadvantaged are also made available to students attending nonpublic schools.

Although some private schools do not want to have any financial assistance from outside sources and especially from government, there is a much larger cadre of schools that would appreciate this additional source of funds. The U.S. Constitution does not allow direct assistance--for example, to pay faculty salaries at private schools conducted under religious auspices. However, a comprehensive concept of adequacy in education and educational finance must encompass nonpublic schools. Consider, for example, the fact that Catholic archdiocesan schools in Chicago (Cook and Lake Counties) serve more than 300,000 students each year. This huge school system makes use of the federal school lunch program to provide adequate nutrition programs for its schoolchildren. These children also use the low-cost public school transportation in Chicago. The Catholic schoolteachers have access to training and innovative programs made available through federal funds. The Catholic schools offer programs to serve handicapped children, using state-appropriated funds.

Do these church school programs cost the same as, less than, or more than those available to the public schools? In some cases nonpublic schools staffed by religious orders whose members have taken a vow of poverty can offer an adequate program at two-thirds or even one-half the cost of the same program in a public school. Also, the church schools that are selective and can eject troublemakers and problem students can have as many as forty children in a classroom without severely impairing the quality of instruction. Obviously, the higher pupil-teacher ratio reduces cost per pupil.

It is not clear exactly how the adequacy concept can be applied to nonpublic schools, but it is an issue not easily resolved.

The Congress, in passing the Education Consolidation and Improvement Act of 1981, decreed that where government funds are made available to nonpublic schools an "equal expenditure" per student should be recognized and demonstrated. For reasons just cited, this may be inequitable, in that certain nonpublic schools can achieve their objectives at less cost than public schools can achieve similar objectives. However, this is the new law of the land, and the notion of equal expenditure somehow has been related to adequacy of education in the minds of congressmen, whether intentionally or not.

Some private schools are much more expensive than public schools and offer an unusually fine education for gifted and talented students. Equal expenditure in such instances will not be enough. Additional funds ought to be made available if some kind of adequacy or equity is intended.

Conclusions and Recommendations

1. No one definition of adequacy will suffice for the 1980s. I would recommend a broad definition of educational adequacy that builds on the academic prescription of the Council for Basic Education, makes provision for economics education and responsibility education, and includes both special education (handicapped and gifted) and vocational education.

2. Any consideration of adequacy must pay attention to the severely depressed status of teachers and their salary scales and of insufficient time devoted to classroom instruction in many American communities. I recommend a minimum of twenty-five hours of instructional time per week and 180 days a year. I also recommend that teacher salaries be raised by at least 25 percent. The time is right to impose statewide salary schedules such as other countries and several of the Canadian provinces use. There might well be in the statewide salary schedule a provision for regional cost of living differences, so that city and metropolitan area teachers will be paid salaries commensurate with the higher cost of working in those areas.

3. The pursuit of adequacy and of excellence cannot submerge the unresolved problems of equity, especially in serving the handicapped, minority people, and women. The resolution of these problems cannot be allowed simply to become a state or local option. Racial separatism has no place in an adequate education program, nor does persistent discrimination against women in employment or in denying anyone access to educational programs.

4. Those skills that can be easily tested do not add up to an adequate education. We need the broadest possible array of measures, including sensitive instruments to assess musical and artistic talent as well as critical and creative thinking.

5. Legal specifications for educationally adequate finance ought to provide for cost variations in educating handicapped, gifted, and vocational students. They should also adjust for regional variations in the cost of education.

6. Educational finance should remain a state responsibility, but with a vigorous federal role in fostering innovation, assisting with the disadvantaged, and resolving specialized manpower problems. Gradually, the local share of education should be reduced, and dependence on the regressive property tax should be reduced as well. All states should allocate to education certain proceeds from broad-based sales and income taxes. It is especially important that states use their resources to make up the differences in resources and values for downtrodden communities and those with below-average property tax resources.

7. The federal government should continue to be responsible for the assessment of education and the collection of data on education. But it should also stimulate new educational programs. Also, health and vocational education depend on a vigorous federal presence, because manpower needs cross state lines. In a capitalist society, it is vital to relate education to the needs of employers, both private and governmental.

In summary, the task of defining adequate education is exceedingly difficult. Undoubtedly, between 1982 and 1987 or 1992, the definition will become even more complex. Not discussed in this paper are the contributions that computer technology might make to education, its purposes and its techniques. It is clear that the federal government will bear tremendous responsibilities for the stimulation of education to levels of performance more adequate than are now possible.

REFERENCES

Advisory Commission on Intergovernmental Relations. *Significant Features of Fiscal Federalism*, 1979-80 Edition, p. 13 as cited in the *Statistical Appendix to Accompany Remarks to the Education Commission of the States*, August, 1981.

College Entrance Examination Board. Press release, September 28, 1981.

Conant, J.B. *The American High School Today: A First Report to Interested Citizens*. New York: McGraw-Hill Publishing Company, 1959.

Cronin, J.M. *Big City School Bankruptcy*. Prepared for the Institute for Research on Educational Governance, Stanford University, 1980.

Education Commission of the States. *Revenues, Expenditures, and Tax Burdens*. Working Paper No. 35, prepared by the Education Finance Center of the Education Commission of the States, April, 1981, pp. 16-17.

Gallup, G.H. *Thirteenth Annual Gallup Poll of the Public's Attitudes Toward the Public Schools*, p. 7. Prepared for Phi Delta Kappa. Reprinted from *Phi Delta Kappan*, September, 1981, Vol. 63.

Gardner, J.W. *Excellence, Can We Be Equal and Excellent Too*? New York: Harper and Row, Inc., 1961.

Goodlad, J.I. From findings of a book in progress tentatively titled *A Study of Schooling in the United States*. At the time of this writing Goodlad's *Summary Volume of Findings* also is in progress.

Graham, P. "Literacy: A Goal for Secondary Schools." *Daedalus*, Summer, 1981, Vol. 110, No. 3, pp. 119-134.

Illinois State Board of Education. *Illinois Teacher Supply and Demand, 1979-80* (Annual Report), Fall, 1980.

National Assessment of Educational Progress. "Achievement Up Among Title I Students." *NAEP Newsletter*, Summer, 1981, Vol. 14, No. 2, pp. 5,8.

National Assessment of Educational Progress. "Elementary Reading Skills Improve." *NAEP Newsletter*, Spring, 1981, Vol. 14, No. 1, pp. 1,2.

National Assessment of Educational Progress. "Science: Contradictions Found in Attitudes of U.S. Teenagers, Adults." *NAEP Newsletter*, December, 1979, Vol. 12, No. 6, pp. 1,2.

Simon, P. *The Tongue-Tied Americans: Confronting the Foreign Language Crisis.* New York: The Continuum Publishing Company, 1980.

Tyler, R. Personal communication on the U.S. Census and other enrollment studies, December 29, 1981.

U.S. Department of Health, Education and Welfare, Office of Education. From a computer printout of the Special Education Child Count, June, 1981.

U.S. Department of Health, Education and Welfare, Office of Education. Progress Toward a Free Appropriate Public Education: A Report to Congress on 94-142, The Education of All Handicapped Children Act, January, 1979.

Wise, A. Legislated Learning: The Bureaucratization of the American Classroom. Berkeley: University of California Press, 1979.

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EDUCATIONAL ADEQUACY

David A. Bennett

"Educational adequacy" has now joined a lexicon of ineffable educational terms that includes "equality of educational opportunity," "thorough and efficient," "minimum competence," and many others that are just as vague. These terms often express a hope that is quite subjective. Thus, when scholars attempt to give them precise and empirically derived meaning, confusion abounds.

The concept of educational adequacy must be seen against a backdrop of school finance reform history. Although it has idiosyncratic manifestations, the primary objective of school finance reform in recent years has been the equalizing of educational spending within states. It was assumed that reducing the inequities between expenditures in wealthy districts and poor districts would improve educational outcomes in the property-poor districts. This common-sense notion was reinforced by educators' arguments that increased educational spending would lead to improved instruction. In pursuing this argument, proponents could cite extreme examples of resource deprivation with resultant inferior education. They could also give examples of richly endowed districts with lists of Merit Scholars. However, common sense and individual examples notwithstanding, social scientists do not always agree upon the relationship between school expenditures and the effectiveness of schooling as measured by standardized achievement tests (Rossmiller, 1981).

Disparaties between financial resources available to districts within states are a continuing problem, but there is, in my opinion, an even more fundamental issue: the great disparity *among* states in the level of educational expenditure (Carmen, 1980). While the federal government's role in education has been limited, its initiatives nevertheless have been inspired by the issues of equity and adequacy. For example, *Title I* of the *Elementary and Secondary Education Act* of 1965 attempts to ameliorate the impact of poverty on educational opportunity. Similarly, P.L. 94-142 and federal bilingual aid attempt to support local district efforts at providing education for groups and individuals formerly excluded or inappropriately educated by the school system. After the mid-Sixties and continuing into the Seventies, the federal government saw its role as attending to the needs of children inadequately served by mainstream educational systems. The categorical nature of federal programs, in combination with strictly enforced rules and regulations, assured that the intended targets of federal money were in fact the true beneficiaries. Subsequent longtitudinal evaluations of such programs as Title I and Head Start appear, finally, to have established a positive relationship between these programs and improved learner outcomes for the targeted group (Hodgkinson, 1979).

With the election of Ronald Reagan as President in 1980, the federal role in education has taken a new direction. The term "a new federalism" has been used to describe the more limited federal role in education seen by the Reagan administration. More clearly defined and separated responsibilities among federal, state, and local educational officials is a clear goal of this administration. Not only is the amount of federal support for education being reduced, but also the categorical nature of federal support is being replaced to a certain extent by block grant aids, as evident in Chapter 2 of the Education Consolidation and Improvement Act of 1981 (Rodriguez, 1981).

The importance of this philosophical policy shift cannot be overstated. Under the former national policy it was recognized that some states and local districts were, by intention or neglect, not adequately serving certain population groups. Direct federal intervention was employed to reduce inequities and provide service where inadequate or insufficient state and local service existed. Consequently, the majority of federal funding found its way into urban centers where concentrations of handicapped, poor, and limited-English-speaking students existed. Now, under Chapter 2 guidelines, programs that formerly served a host of individual, special interest needs are combined as a resource package given to individual states to decide specific allocations to the local districts. Also, much wider discretion is given the local district in the expenditure of federal funds than was previously the case under the individual categorical funding. This distribution will also provide, for the first time, federal funds to support local districts that heretofore had received no federal aid and to expand proportionately the participation of private schools. It should be noted, however, that the 28 categorical programs that have been consolidated into block grant programs involve a relatively small portion of the federal aid total. The major programs (e.g., Title I, ESEA; programs for the handicapped; and vocational education) are still categorical.

Former national policy for the expenditure of federal funds seemed to imply distrust of both local and state officials to act responsibly on behalf of minority groups. It was determined at the national level that an adequate education was not being provided to certain groups; therefore federal intervention was necessary to remedy the "faults" of local and state officials. Not only were states providing inadequate resources, but local districts were assumed to be indiscreet in the use of resources for disenfranchised groups. The "new federalism" is apparently attempting to restore faith and trust in both state and local officials' capacity to provide adequate education to competing special interest groups. Some districts--particularly large urban districts--recognize that the reduced amount of money available under the Education Consolidation and Improvement Act funding plan will cause severe dislocations among competing special interest groups at the local level. There simply will not be enough resources to fund all of the former categorical programs, and the prospect for contentious debate among competing interest groups on the issue of educational adequacy looms ahead. Urban school administrators question increased discretion in the expenditure of federal funding in light of the overall retraction of federal dollars and the apparent emergence of a new policy of "non-intervention" in the problems of urban schooling. After years on the "federal fix," they face the prospect of urban schools going "cold turkey" in the present economic environment with considerable trepidation--particularly in view of the historical lack of consideration given most city schools by their state legislatures. An example demonstrating the impact of this change in federal policy for one urban school district would seem to be in order.

It is estimated that under Chapter 2 of the Education Consolidation and Improvement Act the entire state of Wisconsin will receive approximately $9.8 million under the present House Committee allowance. By comparison, the school district of Milwaukee now receives almost $8 million alone under Title VI of the Emergency School Aid Act (one of the consolidated categories). Estimates of Milwaukee's share under the consolidated grant of Chapter 2 range from a low of one-half million to a high of two million, depending on the distribution formula determined by the state education authority, i.e., the state superintendent. The distribution formula will take into account not only the number of students in each district but also the concentrations of expensive-to-educate children. While Milwaukee will have considerably more latitude in how it spends whatever money it ultimately receives, it also recognizes that a relatively small proportion of the previously funded programs can possibly continue under federal funding (Bennett, 1981).

As important as changes in federal educational policy on the issue of educational adequacy may be for local school districts (particularly urban school districts), the fundamental responsibility for assuring an adequate education remains largely a state and local responsibility. Moreover, attempts to define the term educational adequacy have largely been based on court cases and scholarly inquiry into the nature of state and local district efforts to provide a fair, just, and effective educational program for its residents. Before embarking on an effort to describe educational adequacy, it would seem appropriate to offer a better definition of the term.

Toward Definition of Educational Adequacy

While the term educational adequacy grew out of the environment of school finance reform, it is clearly meant to refer to something well beyond dollars and cents. The term "thorough and efficient" is borrowed from the New Jersey Constitution and is cut from the same philosophical cloth as is educational adequacy. Wise observes, "Until the thorough and efficient conception emerged, the objective has been the reduction of differences in expenditure levels. With 'thorough and efficient' has come an emphasis on how the schools can be required to provide an adequate education, a shift from concern for finance to concern for education. The groundwork for this shift has been laid in the early adjudication which centered on proving that changes in financial practices would result in changes in educational results. The dispute revolved around whether the real objective was equal expenditure, equal treatment, or equal results. While the dispute was never settled, it transformed the school finance reform movement into an educational reform movement. In the process the concern for equity gave way to a concern for adequacy" (Wise, 1976). Educational adequacy has a kindred relationship with the term equal educational opportunity. In fact, some definitions of equal educational opportunity describe an adequate educational program. Because of this relationship, let us look now at varying definitions of equal educational opportunity, which has suffered the vicissitudes of varied interpretation much longer than educational adequacy.

Equal educational opportunity has been treated as an access issue, a resource-equalization issue, a differentiated-resource-by-function-of-need issue, and finally an equalization-of-result issue. Most of these definitional issues arose from court cases in which the term equal educational opportunity was a vehicle for expressing individual interpretations of justice.

Equal educational opportunity as an access issue is clearly evident in desegregation litigation. Districts were found to be in violation of the equal protection clause of the Fourteenth Amendment as a first step. Because of segregated schools, it was reasoned that the maintenance of a dual system (both separate and unequal) systematically denied a class of students access to the better opportunities that the school system had to offer. In decisions and dicta, desegregation court cases are replete with references to the fundamental right of equal educational opportunity as defined by "access to whatever quality of education may exist in a community" (Craig Amos v. Board of School Directors, Milwaukee, 1976). The remedy prescribed in desegregation cases was to destroy all remnants of the dual system, root and branch, and to recreate to the extent possible a system unaffected by the consequences of discrimination. The present effects of past segregation were often remedied by reassigning students and staff in a manner to resemble the system had it been unaffected by segregation. While many desegregation cases displayed this very limited sense of equal educational opportunity as a basis for remedy, some judges expanded the access issue to make it one of program quality. In the Detroit case (Milliken v. Bradley) for example, the judge spelled out various remedial programs that the system had to institute in order to comply with his order. For example, a new system-wide basic skills program was ordered by the judge. Furthermore, the state of Michigan was ordered to participate in the remedy by funding new education buildings. Thus, while the treatment of equal educational opportunity as a question of access is not a "pure concept" in desegregation cases, the prevailing operational definition in these cases continued to emphasize access over result.

The definition of equal educational opportunity as a function of equalization of resources is a concept that has grown out of educational finance theory. This definition assumes a close positive relationship between resources and program quality, i.e., plentiful resources lead to an effective educational program and, conversely, a dearth of resources leads to ineffective educational programs. Once we accept this assumption, the question can be asked, "Should a child be denied equal educational opportunity by virtue of his or her residence in a property-poor district?" The Serrano ruling in California required that the state cease permitting the quality of a child's education to be a "function of the wealth of his parents' neighbors." The remedy to this problem of inequality is not within the power of the local district—at least to the extent that the rich localities have no problem to solve and the poor localities cannot solve their problems for lack of resources. Therefore, some form of interdistrict equalization is required to restore equal educational opportunity. Sometimes the argument for equal resources does not focus on educational needs at all. Instead, equity becomes a taxpayer-burden issue. States that employ "power equalization" approaches in their state-aid formula provide a guaranteed valuation in each school district behind each student. Theoretically the state equalizes the potential for supporting education among the school districts.

Critics of the equalizing-of-resources approach to the definition of equal educational opportunity have noted that the presumed relationship between resource and program quality can be contested. They have also argued that the unfettered drive toward uniformity of expenditures can lead to an overall leveling down of the quality of public education, driving middle class and upper middle class students and parents to the private school alternative. This in turn exacerbates the circumstances for the poor because many of the influential advocates for improvement and reform have left the system. Moreover, equal treatment of those who are inherently unequal would seem on its face to confound this generalized-resource definition of equal educational opportunity. This consideration, then, has led to a variation on the equalization of resource theme to take into account the various special classifications of those who require greater resources in order to have an equal opportunity. If students by predisposition are fated to benefit differentially from the same educational treatment, one must conclude that, for equal educational opportunity to be realized by these students, some adjustments must be made in resources. It has now become familiar to see states include in their basic state aid formula (usually as an adjustment to a foundation program) per-pupil "weightings" for expensive-to-educate children. For example, in the state of Massachusetts a full-time equivalent pupil enrolled in regular programs is assigned a weight of 1.0. Pupils in bilingual programs receive a weight of 1.4, pupils in special education programs a weight of between 2.5 and 6.30, and pupils in vocational programs a weight of 2.0. All Title I-eligible students receive an additional 20 percent share of state aid to reflect the additional expenditures associated with compensatory education programs (Augenblick, 1979).

Sometimes equal educational opportunity is defined not in terms of the specific recipient of the differentiated resource by classification but rather in terms of the district as a whole, described as a special case. Frequently, city school systems are defined as special-interest districts that, by virtue of their special needs, require different resources in order to assure equal educational opportunity for their constituents. Historically, cities have used three primary arguments to plead their case for special consideration to the state.

First, they plead "municipal overburden," contending that the central city must support, out of its property tax, competing high-cost services such as police, fire, health, and social welfare. The competition for the tax dollar often works to the disadvantage of public education; therefore, the state has a role to play in equalizing this municipal overburden.

Second, cities often argue on the basis of urban cost differentials. They claim that higher cost per pupil is a predictable outcome of the higher cost of doing business in the urban sector. Higher wages, higher construction costs, higher land acquisition costs, and other unique costs in the city force it to contend with problems that non-urban districts do not have. Thus, in order to comply with a state "thorough and efficient" clause or the federal equal protection clause, the state ought to compensate cities for these inherently high special costs.

Finally, the argument is made by many cities that they have a disproportionately high number of difficult-to-educate students, and this special needs differential ought to be taken into consideration in any state funding plan. Cities will cite the high number of educationally disadvantaged students and the number of students with limited English-language skills. It is also argued that the cities have an inordinately high number of handicapped students and often serve as a center for the receipt of handicapped students from non-urban areas. In summary, the cities argue that the state ought to compensate the city in a special manner to alleviate the burden of educating these high-cost, difficult-to-educate students.

Cities have not been altogether successful in arguing these points with the state legislatures. Nevertheless, a state can classify the city as a special interest group if it wishes to distribute resources differentially in an effort to achieve equal educational opportunity.

The interpretation of equal educational opportunity as whatever produces equal educational results probably comes as close as any interpretation to the definition of educational adequacy. However, the definition of equal educational opportunity as equal educational result is a highly idealized notion of the responsibility of education in a society. While there are no clear examples of this definition of equal educational opportunity operating in any state, the definition does tend to creep into legal remedies and state plans.

Of course, the problem with inferring a lack of equal educational opportunity from the existence of unequal educational attainment is self-evident. It does not take into consideration the varying levels of talent and sense of responsibility of the learner. Even if this idealized notion were reduced to statements regarding minimum levels of attainment, the same kinds of qualifications must still apply. Unequal or even inadequate educational attainment may or may not be a result of inadequate opportunity, and without further inspection the cause and effect relationship between opportunity and results cannot be successfully drawn.

A familiar paradigm, the input--process--output model, helps distinguish educational opportunity from educational adequacy. Equal educational opportunity is considered an input variable. Process is the dynamic interaction of input and student. The resulting output of this process could be described as an adequate education. However, students come with varying talents and predilections for learning. This very same model could assume inadequate opportunity or inadequate skill and commitment on the part of the student, with resulting educational inadequacy. Thus the distinction between adequate and inadequate education involves, essentially, a judgment about what needs to be known and how well it needs to be known. This epistemological inquiry can take off on flights of fancy and never touch the ground--or it can be an important concern of courts, legislatures, and school systems where practical interpretations of adequacy need to be made.

One definition of educational adequacy harkens back to the fundamental purpose of a public education in the United States. "The language used in the preamble of the 'Old Deluder Satan Act,' passed by the colonial court of the Massachusetts Bay Colony in 1647, indicated that (there was a) religious motive for education in the New England colonies. . . . Keeping men from knowledge of the scriptures was listed as the primary reason for requiring towns to establish common schools and grammar schools" (Reagan, 1966). Wise updates this definition in terms of the federal constitution: "A more detailed examination of the San Antonio decision will better reveal the parameters of minimum educational adequacy. The term seems to require the qualifying phrase, minimally adequate for what? In the test of San Antonio, the 'for what' is to fulfill a citizen's right under the Constitution: The schools must prepare students to exercise their constitutionally guaranteed rights. Education presumably must prepare a child to exercise his First Amendment interest, both as a source and as a receiver of information and ideas, and instill in students an understanding of and appreciation for governmental processes. Minimum educational adequacy is presumably that amount of education required to prepare a student to have this knowledge and exercise these rights" (Wise, 1976). When Wise refers to First

Amendment rights, he is, of course, referring to the bars against the establishment of religion, the exercise of freedom of speech and the press, and the right to peaceably assemble and petition the government for redress of grievances. While both of these definitions are necessarily a part of educational adequacy as it might have been measured at a particular point in our history, they are not sufficient to explain the increased expectations most individuals hold for minimally adequate education today. Both definitions suffer some degree of parochialism. Moreover, the Constitution guarantees more rights than are included in the First Amendment.

Nor does the equalization of resources, no matter how exact and sophisticated in reference to need, satisfy the definition of adequacy. Equalization of resources belongs on the input side of the equation. Wise fears that the introduction of the concept of educational adequacy will force a "hyperrationalized" view of education. "It presumes that the policy-making process can settle upon a definition of adequacy which meets the legal obligation and is educationally meaningful. It further presumes that this definition can be translated into educational objectives, that an instructional system can be established which will attain these objectives, and that a test can be devised to ascertain whether the objectives have been achieved. It requires a management, budgeting, and accounting scheme which will render the school system accountable to the state. I call such a view of education 'hyperrational' because it supposes easy agreement on the aims of education and the science of education which does not yet exist. This line of litigation may be pursued to effect change in education" (Wise, 1976). When a definition of educational adequacy is proffered that speaks to the need for providing educational experiences to meet the needs of students in accordance with their potential and in a way that balances the individual and social benefit against the willingness and ability of society as a whole to pay for this education, we can understand why Wise would be less than sanguine in predicting society's ability to operationalize these terms.

There is an interesting legal history, beginning with the Serrano case in 1971 and culminating in the recent Nyquist decision, that demonstrates the legal complexity of this educational adequacy issue. In August of 1971, the California supreme court decided the case Serrano v. Priest—commonly referred to as Serrano I. The court held that the plaintiffs' complaint was a valid cause of action and remanded the case back to the trial court. The plaintiffs had challenged the local property tax as a violation of both the Fourteenth Amendment of the U. S. Constitution and a similar provision in the California Constitution. In Serrano I the California supreme court declared that public education was a protected fundamental right and that the ad valorem property tax was a suspect means for funding education in the state of California. The burden of proof shifted to the state of California to prove that a compelling interest existed which made the property tax based financing scheme a necessity. Following Serrano I a large number of similar cases were filed in other states challenging the financial laws supporting public education. However, this legal activity was brought to an abrupt halt by the Supreme Court decision in San Antonio Independent School District v. Rodriguez. Mr. Justice Powell, writing for the five-vote-majority, concluded that the system of financing public schools did not operate to the peculiar disadvantage of any suspect class. He further wrote that education was not among the fundamental rights explicitly referred to in the U. S. Constitution, thus, the only responsibility placed upon the state of Texas to defend its aid plan was to demonstrate some rational basis for the plan's existence. This, of course, is a much more lenient test than the strict scrutiny provisions outlined in Serrano I.

Rodriguez had a chilling affect on the filing of challenges to the Fourteenth Amendment regarding public school financing plans. Nearly 50 pending constitutional cases were immediately dismissed by the Rodriguez decision. However, the Rodriguez decision did leave the door open for challenging state financing plans for public education under the equal protection language of state constitutions. Shortly following the Rodriguez decision, the New Jersey supreme court in Robinson v. Cahill held that the New Jersey system of school financing violated the New Jersey constitution.

Finally, in late October of 1981, the New York supreme court held in the Board of Education Levittown v. Nyquist that the method of public school financing in New York state worked to the distinct disadvantage of students and parents in large urban areas. This case is important because for the first time large city plaintiff-intervenors were successful in convincing a court that the unique problems of large urban school districts were not being recognized in the state public school financing statutes. However, the recognition of an inequitable state financing system does not necessarily lead to an instant remedy. For example, following the Robinson v. Cahill decision in New Jersey, the state legislature spent months of embroiled debate over the "thorough and efficient" clause in their constitution and their obligation to provide a more equitable financing system. So while courts can determine violations of law and inequitable circumstance, those same courts have to date relied on legislative bodies to grapple with the complex issues of equity and adequacy. It will be interesting to see if courts will be reintroduced to the problem if legislators are unwilling or unable to satisfy the needs of the original plaintiffs.

While courts and legislatures parry over the requirements of financial educational adequacy, other aspects of adequacy are being explored from different perspectives. Certainly the minimum competency testing movement is one clear demonstration of our society's effort to set criterion standards of performance to assure adequacy. Furthermore, some states have described through legislation a rather detailed scope of educational program that would represent a minimal effort by each school district in the state. Finally, the whole "school effectiveness" movement is striking at that educational shibboleth derived from James Coleman's Equality of Educational Opportunity—namely, that schools cannot overcome the students' socioeconomic conditions in attempting to provide an adequate education. The school effectiveness movement is attempting to destroy this assumption, thereby making it possible to explicate a relationship between equal educational opportunity and minimal educational adequacy. Without this vital link, the assumption that the student can learn and benefit from increased opportunity, the input—process—output model has no application.

In summary, the definition of educational adequacy can be distinguished from any definitions applying to equal educational opportunity in the same way that output measures can be distinguished from input measures. Of course, it can be argued that one closed system's output becomes the input for a new closed system. However, in the discussion that follows I shall think of education as adequate when it meets both a societal and individual need standard of performance. In the balance of the paper I shall examine the influence of such movements as competency-based education, instructional effectiveness, and the anticipated financial climate as attempts to create useful metrics for the application of an educational adequacy standard.

Competency-Based Education and Testing

"The minimum competency movement could be the major school reform of the 20th century. It's been called that. More cautious observers deem it 'a potential tool for fundamental school reform.' Critics call it the 'great American educational fad of the 1970's'" (Neill, 1978). While its primary reason for being stems from the public outcry for more educational accountability, competency-based education and testing are making a clear contribution to the definition of educational adequacy. As states and local school districts try to identify what is to be learned at what level of proficiency and as measured by what instruments, some of the essential elements of adequacy are being defined, at least in terms of minimums. Finally, there are real consequences resulting from the implementation of a competency-based education and testing system--some of them negative, such as non-promotion and non-graduation, and others positive, such as the receipt of compensatory education funds to remedy the identified inadequacies. The competency-based education and testing movement is primarily grounded in the school reform rather than the financial reform movement and shares that common heritage with educational adequacy. The first and still one of the most ambitious applications of competency-based testing is the Educational Accountability Act of 1976 in Florida (Buckmiller, 1979). The law "guaranteed" that every child would obtain minimum performance and mastery in the basic skills and be promoted from the third, fifth, eighth, and eleventh grades in accordance with a specifically established set of goals and objectives. The Competency Movement Problems and Solutions, an American Association of School Administrators critical issues report, described the Florida plan as follows:

> Of particular interest to the nation as a whole were the results of a functional literacy test, a 117-question test of reading, writing, and mathematics. Passage is required for high school graduation, starting with the class of 1979, making Florida the first state to try out the idea of requiring evidence of functional literacy for high school graduation.
>
> First administration of the test to the state's 100,000 eleventh-graders--the class of 1979--took place in October, 1977. A passing score of 70 percent was required on the test, which for the purpose of scoring was divided into two parts, communications and math. Passage of one part of the test means that students do not have to take it again. As predicted, the failure rate in some districts was in excess of one-third of the students.

Early returns showed the failure rate on both parts of the test was highest in predominantly black schools and that many more students failed the math section than the one on communications. The communications skills are geared to a seventh-grade level, the math to an eighth-grade level. The math section, which tests everyday skills such as balancing a checkbook, was said to be "too hard" by some school administrators.

Florida legislation says students are to get three chances to pass the test. Failure all three times means that students must be given a certificate of completion instead of a high school diploma. Officials estimated that 5 to 7 percent of Florida students will still be unable to pass the test by the time they are scheduled to graduate.

Florida's Educational Accountability Act of 1976, which contains the requirement of functional literacy for high school graduation, also specifies minimum requirements for lower grade levels. It has been called "the most comprehensive minimal competency testing legislation enacted in 1976." Among the legislation's broad intents are to guarantee that each student will receive instruction enabling him to meet the state's minimum performance standards and to provide information to educators, legislators, and community about school district effectiveness in enabling students to meet minimum standards and program costs.

One portion of the act specifies that districts are to emphasize basic skills, starting in the earliest grades, and that they are to provide early childhood and basic skills development programs. Each school district was required to set goals and objectives to supplement the state's minimum standards. They must stress basic skills.

The state's minimum standards are written in two ways: in terms of "standards" to communicate primarily with the general public and in terms of "skills" to communicate with teachers and curriculum specialists. As an example, by the beginning of the third grade the student should be able to meet this minimum standard: "The student will acquire a basic vocabulary as determined by a specified word list." The minimum skills required by a third-grader to demonstrate that standard are "to identify words selected from the Dolch 220 list" and "to associate words with words of opposite meaning." There are 13 minimum standards and 15 basic skills required of a third-grader in reading.

Minimum standards are provided in reading, writing, and mathematics at the four grade levels tested in Florida's statewide assessment program. The Florida Department of Education says the standards were developed and reviewed according to three criteria:

- Achievement of the skills is reasonable for every student in basic education programs who has appropriate instruction and motivation and who is not impaired by a mental or physical handicap.

- The highest skills (usually grade 8 or 11) realistically specify the maximum skills needed by the student to perform effectively the reading, writing, and mathematics tasks required for everyday living.

- Achievement of skills at each grade level is necessary for the student to make normal progress toward the desired highest level skills.

The legislation mandated that districts establish pupil progression programs that are compatible with the minimum standards. Students are not to be promoted from grades 3, 5, 8, and 11 until they have mastered minimum basic skills. Statewide tests of basic skills given in those grades are to be used for diagnostic purposes so that students can be provided appropriate remediation.

The state's new compensatory education program is aimed at helping districts and schools provide remediation to students unable to meet minimum standards. The legislature appropriated $10 million to fund the program during the 1977-78 school year and $26.5 million for the following year. During the first year of implementation, most districts reportedly were using the funds to bring eleventh-graders up to minimum standards in preparation for high school graduation.

Starting in September, 1977, Florida also offered students who are between 16 and 18 years of age the option ot leaving school prior to graduation. Students must pass a high school equivalency test, the GED (tests of General Education Development). The test is written at the ninth-grade reading level, has five sections (reading, writing, math, social studies, and science), and takes 10 hours to complete. Students pay a $10 fee.

They must have parent permission to take the test. In addition, they must have a conference with the school principal or his designee to review their academic career and job possibilities. Students who elect to take the test and pass it must leave school and cannot return (Neill, 1978).

A class action suit was filed against the state of Florida challenging the constitutionality of the Florida student assessment test. In the case Debra P. v. Turlington (1981), the plaintiffs contended that the state-designed-and-implemented testing program was racially biased in violation of the equal protection clause of the Fourteenth Amendment. They also complained that Fourteenth Amendment violations were incurred when the state failed to give notice early enough for students to prepare for a program that would eventually deny diplomas to some of them. The trial court found that the testing program indeed violated the equal protection and due process clauses of the Fourteenth Amendment and enjoined the state from using the test as a requirement for receipt of a diploma until the 1982-83 school year.

However, the court denied the plaintiffs' complaint that the examination for remediation violated the constitution.

On appeal, the Fifth Circuit found "the problems created by the abrupt schedule for implementing the functional literacy test were most severe for the members of the Florida high school graduation class of 1979. At the eleventh hour and with virtually no warning, these students were told that the requirements for graduation had been changed. They were suddenly required to pass a test constructed under the pressure of time and covering content that was presumed to be elementary but that the schools may or may not have taught them recently, well, or perhaps at all" (Task Force, 1979). The court went on to extend its findings regarding what it perceived to be the fundamental unfairness of any test that covered matters not taught in schools of the state. In conclusion, the court stated, "We recognize that the interest of the state of Florida in both remediation and diploma denial aspects of the basic competency program are substantial. We hold, however, that the state may not deprive its high school seniors of the economic and educational benefits of a high school diploma until it has demonstrated the test is a fair test of that which is taught in its classrooms and that the racially discriminatory impact is not due to educational deprivation in the dual system" (*Debra P. v. Turlington*, 1981).

In a May, 1979, article in the *Phi Delta Kappan*, Ralph D. Turlington, commissioner of education, state of Florida, stated on behalf of the competency program that the second administration of the program in 1978 showed substantial improvement over scores in 1977. Turlington argued that the competency test, in combination with the imposition of the compensatory program, spurred and motivated improved pupil performance. He commented on what he perceived to be striking improvement in black student performance: "Eighty-nine percent of the black eleventh-graders passed the communications portion of the 1978 test, up from 74 percent in 1977, for a net gain of 15 percent; 40 percent of black eleventh-graders passed the mathematics portion of the test, up from 23 percent in 1977, for a net gain of 17 percent.

"Eighty-nine percent of the black eleventh-graders tested for the first time in October, 1978, passed both portions of the test, up from 22 percent in 1977, a gain of 17 percent, and have met the test requirement for receiving a diploma.

"This should lay to rest any suggestions of racial or cultural bias on the test. Gains of 15 percent in communications and 17 percent in mathematics by our eleventh-graders prove that point; in addition, more than half of the black students retested as seniors passed the test" (Turlington, 1979).

"Virtually every state in the union is either planning or implementing some form of competency requirement prior to graduation" (Pinkney, 1979). Currently more than 35 states are requiring minimum competencies for promotion from grade to grade or graduation from high school or both. Not only are states increasingly active in this area, but so are local districts. The pressure is most keenly felt by urban school systems because of their size and history of citizen complaints regarding effectiveness. A number of city school systems have taken the initiative, frequently in the absence of state pressure or a state requirement to do so. For example, credit for initiating

Detroit's minimum competency testing program resides with its district head, General Superintendent Arthur Jefferson. In a communication to the Detroit school board in 1977, he persuaded the board to adopt a testing program that ultimately came to be called the Detroit High School Proficiency Program (Popham and Rankin, 1981). The Detroit plan called for the involvement of the community in identifying a manageable number of significant competencies in reading, writing, and mathematics. Then criterion-referenced tests were built specifically to measure these Detroit high school competencies. A total of twelve competencies were identified, four each in reading, writing, and mathematics. For example, the competencies in reading were: 1) identifying main ideas, 2) understanding official documents, 3) using common reference tools, and 4) comprehending directions. Item pools were professionally developed to measure these competencies.

In the first year, 1981, 81 percent of the students passed the reading test, 55 percent passed the writing test, and 49 percent passed the mathematics test. Some students were close enough to passing these tests to require little in the way of additional intervention. Other students, however, had to be reprogrammed in order to receive the necessary instructions in the basic skills to pass the exam. Also, the district experienced a substantial increase in summer school enrollment in special free classes designed to remediate high school students in the basic skills.

In the spring of 1977, the Milwaukee Board of School Directors directed the district administration to develop a testing standard for graduation based on minimum reading performance. The Test of Academic Skills was adopted as the instrument and the eighth-grade normative scale was employed to set the standard for graduation that would first affect seniors in June of 1978.

In December of 1980, a new graduation competency committee representing parents and staff was established in response to a school board resolution. The following assignment was given to the group: "1) Thoroughly review issues relating to and including the acquisition of basic skills among requisites for graduation; 2) develop a set of recommendations by January 5, 1981, regarding measurement of the mastery of basic skills that will build on our experiences with the proficiency requirement and will help assure that students graduating from our high schools will have the ability to perform minimum tasks required for living in our society; and 3) investigate the implications of the measurement recommendations for the high school program and detail the instructional provisions needed in implementing the mastery requirements" (Graduation Competency Committee Report, 1981). The committee, after a full review of the issues involved in competency testing, recommended the use of the Basic Skills Assessment Program (BSAP) developed by Educational Testing Service and published by Addison Wesley. This criterion-referenced test measured academic and life skills in the area of reading, mathematics, and language. A writing sample was also required of each student as a fourth area of competency. Following adoption of this measurement by the Milwaukee Board of School Directors, parent and staff groups were organized to set standards or criterion levels for performance on each of the tests. Three standard-setting methods were employed. The first two were review techniques established by Leo Nedelsky and William Angoff. These review methods require the panel of judges to rate each item on the test through special rating procedures and determine the probability of a right answer from the perspective of the competent student. The third method employed the use of contrasting groups of scores from twelfth-grade students. The scores of masters and non-masters as identified by teachers were compared to find the intersection of their distribution scores. This third method of determining a reasonable standard of proficiency was considered the most reliable. The writing sample was scored with holistic scoring devices.

The reading and mathematics tests were administered to grade 8 students in the spring of 1981. Language and writing samples from those standards were to be taken and scored in the spring of 1982. The successful completion of all tests is required for graduation with a diploma from the Milwaukee Public Schools. Students have an opportunity each school year to pass the exams that they have previously failed. Certain exemptions are allowed among handicapped and bilingual students on a case-by-case basis.

In establishing minimum competency tests there are certain key policy questions that must be answered, whether a test is being employed on a statewide or school district basis. Henry M. Brickell (1978) has noted seven key elements of a competency policy, "1) What competencies will you require? 2) How will you measure them? 3) When will you measure them? 4) How many minimums will you set? 5) How high will you set the minimums? 6) Will they be for schools or for students? 7) What will you do about the incompetent?"

In settling on the competencies required, the policy-making group will first have to distinguish between school skills and life skills. Then the group will have to determine what is basic in the chosen area. The instrument of measurement is usually resolved in favor of some form of pencil-and-paper test, even though it is conceivable that other measures, such as actual life performance or school performance, could be employed. However, in choosing a test one is inevitably drawn into the question of criterion-referenced versus norm-referenced testing. Most testing decisions are being made in favor of criterion-referenced testing, but even then there are critical issues to decide. For instance, shall the criterion-referenced items be developed uniquely for the district or state, so that they can be related to the curriculum, or should a commercially produced criterion-referenced instrument be used?

If the goal of testing is to sort students at the end of some educational experience, then the decision on when to test is usually made in favor of an end-of-school period. If, however, the goal is to develop skills and remediate those unsatisfactorily learned, then an earlier introduction to the competency exam is favored. There is also the issue of the "one standard for all" versus the sliding scale of standards that might be employed in recognition of the inherent differences among learners. In any event, the selection of a criterion level is ultimately an act of judgment, no matter how sophisticated the preparation for that judgment.

Also, the consequences of the decision on competency have to be established. Is the skill or knowledge being measured individual student performance or school performance? What will be the consequences for the incompetent student or ineffective school?

Even if these knotty policy issues are worked through carefully, it does not mean that the policy-making group is immune to considerable second-guessing and even legal attack. For example, a well-chosen and well-developed instrument might be subjected to attack because of a decision to phase in the test too rapidly. "Traditional notions of due process should require adequate prior notice of any rule that would cause irreparable harm to a person's educational or occupational prospects. Whatever notice is considered fair in this situation (first grade? fourth grade?), notice after most of one's educational program is already completed clearly seems inadequate" (McClung, 1978).

While test reliability should normally be assumed in either the careful development or careful selection of an instrument, the more formidable issue of validity may not be as easily handled. In this case the validity issue is not the usual question of whether or not a test measures what it purports to measure; rather, it is the more idiosyncratic question of whether or not the test matches particular curriculum objectives. Clearly, a test that has items in it measuring content that has not been taught, or for that matter, was not intended to be taught, is an unfair measure of competency.

Finally, the issue of racial or ethnic bias in a test certainly cannot be ignored in a measure fundamentally as important as a competency test. The disproportional result of the application of a competency measure may or may not in and of itself constitute evidence of a discriminatory purpose. The United States Supreme Court has held that a disproportionate ratio impact in the case of a police department's personnel test was not sufficient to establish an unconstitutional racial classification without proof that it reflected a racially discriminatory purpose (Washington v. Davis, 1976).

Critics of the competency-based education and testing movement argue that it reintroduces the tracking of children in the system and has an inherent cultural bias. Others oppose competency programs because they fear that classroom teachers will ultimately and unfairly be held accountable for educational outcomes. Critics also state the belief that the unremitting attention to the basics encouraged by the tests will drive important other subjects out of the curriculum. Finally, other sources of opposition focus on the "hyperrationalization" of the process. Some testing experts simply believe that the state of the art does not allow a fair and just measurement of competencies; therefore, a test should not be the basis for granting or denying promotion or a high school diploma.

However, the proponents of competency-based education and testing seem to be more numerous and vocal. Competency testing programs are seen as prods to an educational program that has drifted for lack of an academic focus. "Schools are required to incorporate the state's specified basic skills objectives in their programs; select instruments for assessing these objectives from among these testing options (including state-developed tests); and submit to the state department of education for approval complete plans for improving basic skills achievement" (Hartmann, 1981). This statement is typical of those having to do with the reciprocal effect that testing has upon an educational program. Popham and Rankin (1981) take an even more pejorative view of the negative position some educators adopt on minimum competency testing:

> The current controversy about minimum competency testing is in many ways an example of conflict between the general public and the special interest group (constituted by) educators. The public desires reassurance of educators' effectiveness. But many educators are not willing to be held accountable for pupil deficiencies, which they see as coming from social forces outside the influence of the schools.
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> In the view of many citizens, minimum competency testing programs, particularly those that apply to students to display mastery of specific skills prior to graduation, offer the public a limited warranty that no "undeserving" student will be given a high school diploma. From the perspective of the public disenchanted with devalued diplomas, such assurance is consoling.

Evidence that the employment of competency measures has had a salutary impact on low-achieving students and low-achieving school systems is reported by Alschuler and Flinchum (1979). These researchers report that Superintendent Herb Sang of the Jacksonville, Florida, school system used the eleventh-grade results of state competency measures as a basis for a major turnaround of the junior high schools that fed ineffectively performing students into the senior high system. Through a plan entitled "social literacy," the entire school system dedicated itself to the improvement of performance in Northwestern Junior High School in Jacksonville. While the researchers report that "Northwestern Junior High School is not yet a paragon of educational virtues," they conclude that what was started at Northwestern "is a winning strategy designed to solve a crucial educational problem: helping students attain a minimal level of literacy and competence in mathematics."

The competency-based education and testing movement is one clear manifestation of an attempt to provide an operational definition for educational adequacy. There are warnings that even the most fair, just, and sensitive use of this very powerful tool may work against the provisions of an adequate education for all. Former American Educational Research Association President Gene Glass says that he views the Florida competency program "...as an educational system in the throes of disruption and dislocation....One wonders how many pupils have been nudged out of school by their first encounter with the test and how many for whom it was their final discouragement?" (See Education Daily, 1978) Indeed, if a fear of the competency exam drives an increased number of students out of school and the competency test scores themselves become more important than teaching and learning, the basic goal of an adequate education is defeated. Moreover, making student performance the exclusive target of competency testing invites the question, "Why not start with teacher competency testing?" Recently, however, U. S. Secretary of Education Terrell Bell has suggested changes in teacher preparation programs to assure a higher standard of teacher performance (Education Week, 1981). John Tyo notes an encouraging sign in this area. "Even teaching establishments are adapting to the new realities. At the University of Georgia, 90 percent of CBE-trained teachers were successfully placed in jobs; on the other hand, only 50 percent of non-CBE-trained teachers found work. Evidently, training for

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competency teaching is a selling point for employment" (Tyo, 1979).

The competency-based education and testing movement has its weaknesses and pitfalls, both real and imagined. Yet there is something in the process by which competency-based education is developed that may be as important as the end result. In most cases the school system or the state education authority invokes the participation of the public in the determination of competencies. Frequently, the public is involved in the selection or development of a measurement instrument and in determining the level of achievement, using that instrument, that will be accepted. This process, as clumsy and unsophisticated as it may appear to some, is the very winnowing and sifting process that must be brought to bear in any definition of educational adequacy. Hard data and emotional opinion are mixed in a public crucible. Moreover, the process for adopting the elements of a competency-based education and testing system seem to have immense political acceptability. Aside from complaints from some quarters of the educational establishment, the public and citizen policy-makers seem quite willing to pursue this goal as an outgrowth of renewed emphasis on reading, writing, and arithmetic. "The impetus for CBE comes from a belief that children no longer achieve success in these fundamental areas and from the corresponding public outcry for return to the basics" (Rockler, 1979).

As we gain more experience with competency-based education and testing, we will be better able to handle the unintended, negative consequences of the system. If students can be more effectively instructed the first time around, then the burden for remediation is lessened. The subject of the next section of this paper is an examination of the issue of whether or not we can be more instructionally effective with our students initially. Also, in order for the adequacy goal to be realized there must be a clear expectation that all students, given a socially affordable level of resources, can learn. Without the presence of a capable learner the adequacy equation fails, no matter how the resources are manipulated. The unspoken conclusion of far too many educators and policy-makers is that there is no reasonable "return on investment" for dollars spent on behalf of some students. Recent research on school and instructional effectiveness reinforces the belief that almost all students can learn and almost all teachers can teach effectively. Insofar as this assertion is true, the relationship between educational opportunity and educational adequacy is strengthened.

Instructional Effectiveness

It is impossible to focus on the concept of educational adequacy without discussing those who are not served adequately by school systems. This low-achieving group is in many areas of the country disproportionately represented by low-income and minority students. While the pervasiveness and cumulative effect of underachievement among low-income and minority students is generally recognized, there is no consensus as to the cause of this underachievement. Three theories are commonly used to group the research related to low academic achievement (Project RISE, School Expectation Project, 1980). These theories are: 1) the individual deficit theory, 2) the cultural deficit theory, and 3) the school deficit theory. If one adopts either one of the first two theories, then the potential for achieving adequacy for low-income and minority students is severely constrained. However, adoption of the third theory allows one to be more sanguine, since it is far easier to manipulate the school variable than it is to manipulate the individual or the cultural variable. Silent faith in the first two theories may well be the greatest determinant of federal, state, and local educational policy and practice with regard to the treatment of low-income and minority students. At this point some explanation of these theories would seem in order.

The individual deficit theory contends that the systematic underachievement of low-income and minority students can be attributed to the intrinsic disabilities related to race or class. These disabilities may be physiological, psychological, or genetic in nature. The hotly debated genetic explanation often associated with Arthur Jensen contends that the genetic deficiencies of Afro-Americans explain the generally poor performance of black students in schools. The physiological impediments refer to the neurological, linguistic, or sensory deficiencies resulting from the deprivations of poverty. Anything from eating lead-based paint to poor nutrition or inadequate postnatal care is cited as a physiological predeterminant of poor performance among minority groups. And, finally, the long-term effects of racism and classism are cited as arguments for the psychological impairment of minority students. The psychologically debilitating factors of poverty and racism doom succeeding generations to the same low achievement visited on their mothers and fathers. All of these explanations lead to the conclusion that social mobility and human development are blocked by innate human differences. The implications for educational adequacy for anyone who holds this theory are obvious and discouraging. Unless and until there can be some direct intervention in the psychological, physiological, or genetic makeup of an individual, the potential for educational adequacy is severely limited, according to one who subscribes to this theory.

The cultural deficit theory, as the name implies, holds that the cultural environment and family background of the poor or minority student are so deficient that these children cannot be successful in school. Lack of stimulation in the child's environment is thought to retard a child's emotional and social development. This theory also contends that frequently the environment of minority children is linguistically deficient, as well as overcrowded, unsanitary, and disorganized. A host of studies show that low-income and minority children do not hold the same values as the majority of Americans; therefore, the minority value structure is inherently in conflict with that taught in most American schools. Those who subscribe to the cultural deficit theory contend that values such as initiative, discipline, perseverance, and planning for the future are not sufficiently emphasized in lower-class cultures. Also included here are educators who believe they can adjust their instructional approaches based on their knowledge of minority cultures and modalities of learning. If one adopts this theory in approaching educational adequacy, it leads inevitably to a belief in social reconstructionism: Unless our whole society can be made over and homogenized in a fashion that removes these cultural deprivations, then educational adequacy cannot be realized.

The third explanation for the underachievement of low-income and minority students places the main burden of responsibility on the schools. This explanation calls for a much more limited and tightly focused approach to the problems of academic underachievement. It can be called the "self-fulfilling prophecy" theory, in that it regards students' low performance as a direct result of low expectations for their performance. It is important to note that the school deficit theory does not assume any validity for the more tangible descriptions of quality, such as age of the school building, the amount of money teachers are paid, or other material resources in the school. Instead, the school deficit theory focuses on the internal climate of the school in an attempt to calculate whether the school holds high or low expectations for students' academic performance. The school deficit theory assumes that low expectations substantially contributes to the low academic achievement of low-income or minority students rather than something inherent (and unchangeable) in the student himself/herself or in the student's culture. Manipulating the school environment should be what education is all about. Therefore, the potential for educational adequacy can be directly realized if schools, not individuals or cultures, can be made more instructionally effective. Indeed, as a prerequisite to the belief in educational adequacy for low-income and minority students, the first two theories of individual and cultural deficit must be substantially rejected in favor of the third theory. The fact that far too many educators hold implicitly, if not explicitly, to the first two theories (and I might add, not without some substantial support in many research projects), represents a continuing challenge to make schools more instructionally effective and assure educational adequacy for all. "A very great portion of the American people believe that family background and home environment are principal causes of the quality of pupil performance. In fact, no more common notion about schooling is more widely held than the belief that the family is somehow the principal determinant of whether or not a child will do well in school. The popularity of that belief continues, partly because many social scientists and opinion makers continue to espouse a belief that family background is the chief cause of the quality of pupil performance. Such a belief has the effect of absolving educators of their professional responsibility to be instructionally effective" (Edmonds, 1979).

For purposes of this discussion, I shall define an effective school as one that produces an educational result for the vast majority of its students in excess of a predetermined criterion level acceptable to the community served by the school, and one where there is no predictable relationship between pupil achievement and socioeconomic or racial status. While a number of the nation's schools would satisfy the first portion of this definition, the more challenging task is in satisfying the second portion of this definition. While many studies of instructional effectiveness leading to the identification of effective schools might be cited as progenitors of the school effectiveness movement, certainly the widely read work by Weber, Inner City Children Can Be Taught to Read: Four Successful Schools," deserves considerable credit for stimulating interest on this topic (Weber, 1971). Weber's study focused on the characteristics of four inner-city schools whose students demonstrated a high level of reading achievement, as determined from scores on nationally normed tests. All four schools enrolled chiefly minority, low-income students. Weber found these common characteristics: 1) strong instructional leadership in the person of the principal; 2) high expectations for all students; 3) an orderly, quiet, pleasant school atmosphere; 4) strong emphasis upon student acquisition of reading skills, and 5) careful and frequent evaluation of student progress.

In a study conducted by the state office of educational performance review (1974), two inner-city New York schools were compared, one with the high-achieving and one with low-achieving students. The report found:

1) The differences in student performance in these two schools seemed to be attributable to factors under the schools' control.

2) Administrative behavior, policies, and practices in the school appeared to have a significant impact on school effectiveness.

3) The more effective inner-city school was led by an administrative team which provided a good balance between both management and instructional skills.

4) The administrative team in the more effective school had developed a plan for dealing with the reading problem and had implemented the plan throughout the school.

5) Classroom reading instruction did not appear to differ between the two schools, since classroom teachers in both schools had problems in teaching reading and assisting in the development of pupils' reading skills.

6) Many professional personnel in the less effective school attributed children's reading problems to non-school factors and were pessimistic about their ability to have an impact, creating an environment in which children failed because they were not expected to succeed. However, in the more effective school, teachers were less skeptical about their ability to have an impact on children.

7) Children responded to unstimulating learning experiences predictably. They were apathetic, disruptive, or absent in the less effective school.

In a state of California study, Madden, Lawson, and Sweet (1976) examined 21 high-achieving and 21 low-achieving schools. The following are the major findings:

1) In comparison to teachers at lower-achieving schools, teachers at higher-achieving schools report that their principals provide them with a significantly greater amount of support.

2) Teachers in higher-achieving schools were more task-oriented in their classroom approach and exhibited more evidence of applying appropriate principles of learning than did teachers in lower-achieving schools.

3) In comparison to classrooms in lower-achieving schools, classrooms in higher-achieving schools provided more evidence of student monitoring processes, student effort, happier children, and atmosphere conducive to learning.

4) In comparison to teachers at lower-achieving schools, teachers at higher-achieving schools reported that they spent relatively more time on social studies, less time on mathematics and physical education/health, and about the same amount of time on reading/language development and science.

5) In contrast to teachers at lower-achieving schools, teachers at higher-achieving schools report:

   a. a larger number of adult volunteers in mathematics classes;

   b. fewer paid aides in reading; and

   c. they are more apt to use teacher aides for non-teaching tasks, such as classroom paperwork, watching children on the playground, and maintaining classroom discipline.

6) In comparison to teachers at lower-achieving schools, teachers at higher-achieving schools reported higher levels of access to "outside the classroom" materials.

7) In comparison to the teachers of lower-achieving schools, teachers at higher-achieving schools believed their faculty as a whole had less influence on educational decisions.

8) In comparison to teachers at lower-achieving schools, teachers at higher achieving schools rated district administration higher on support services.

9) In comparison to grouping practices at lower-achieving schools, the higher-achieving schools divided classrooms into fewer groups for purposes of instruction.

10) In comparison to teachers in lower-achieving schools, teachers in higher-achieving schools reported being more satisfied with various aspects of their work.

These findings tend to reinforce the earlier findings regarding the importance of leadership, expectation, atmosphere, and instructional emphasis in achieving instructionally effective schooling.

Wilbur Brookover and Lawrence Lezotte (1977) studied eight Michigan schools, six of which were classified as improving schools and two of which were called declining schools. The summary results are as follows:

1) The improving schools are clearly different from the declining schools in the emphasis their staffs place on the accomplishment of the basic reading and mathematics objectives. The improving schools accept and emphasize the importance of these goals and objectives, while declining schools give much less emphasis to such goals and do not specify them as fundamental.

2) There is a clear contrast in the evaluations that teachers and principals make of the students in the improving and declining schools. The staffs of the improving schools tend to believe that all of their students can master the basic objectives; and furthermore, the teachers perceive that the principal shares this belief. They tend to report higher and increasing levels of student ability, while the declining-school teachers project the belief that students' ability levels are low, and therefore, they cannot master even these objectives.

3) The staffs of the improving schools hold decidedly higher and apparently increasing levels of expectation with regard to the educational accomplishments of their students. In contrast, staff of the declining schools are much less likely to believe that their students will complete high school or college.

4) In contrast to the declining schools, the teachers and principals of the improving schools are much more likely to assume responsibility for teaching the basic reading and math skills and are much more committed to doing so. The staffs of the declining schools feel there is not much that teachers can do to influence the achievement of their students. They tend to displace the responsibility for skill learning on the parents or the students themselves.

5) Since the teachers in the declining schools believe that there is little they can do to influence basic skill learning, it follows that they spend less time in direct reading instruction than do teachers in the improving schools. With the greater emphasis on reading and math objectives in the improving schools, the staffs in these schools devote a much greater amount of time toward achieving reading and math objectives.

6) There seems to be a clear difference in the principal's role in the improving and declining schools. In the improving schools the principal is more likely to be an instructional leader, to be more assertive in his instructional leadership role, to be more of a disciplinarian, and perhaps most important of all to assume responsibility for the evaluation of the achievement of basic objectives. The principals in the declining schools appear to be permissive and to emphasize informal and collegial relationships with the teachers. They put more emphasis on general public relations and less emphasis upon evaluation of the school's effectiveness in providing a basic education for the students.

7) The improving school staffs appear to evidence a greater degree of acceptance of the concept of accountability and are further along in the development of an accountability model. Certainly they accept the MEAP (Michigan Educational Assessment Program) tests as one indication of their effectiveness to a much

greater degree than the declining-school staffs. The latter tend to reject the relevance of the MEAP tests and make little use of these assessment devices as a reflection of their instruction.

8) Generally, teachers in the improving schools are less satisfied than the staffs in the declining schools. The higher levels of reported staff satisfaction and morale in the declining schools seem to reflect a pattern of complacency and satisfaction with the current levels or educational attainment. On the other hand, the improving school staffs appear more likely to experience some tension and dissatisfaction with the existing condition.

9) Differences in the level of parent involvement in the improving and declining schools are not clear cut. It seems that there is less overall parent involvement in the improving schools; however, the improving-school staffs indicated that their schools have higher levels of parent-initiated involvement. This suggests that we need to look more closely at the nature of the involvement exercised by parents. Perhaps parent-initiated contact with the schools represents an effective instrument of educational change.

10) The compensatory education program data suggests differences between improving and declining schools, but these differences may be distorted by the fact that one of the declining schools had just initiated a compensatory education program. In general, the improving schools are not characterized by a high emphasis upon paraprofessional staff nor heavy involvement of the regular teachers in the selection of students to be placed in compensatory education programs. The declining schools seem to have a greater number of different staff members involved in reading instruction and more teacher involvement in identifying students who are to be placed in compensatory education programs. The regular classroom teachers in the declining schools report spending more time planning for non-compensatory education reading activities. The decliners also report greater emphasis on programmed instruction.

While all of Brookover and Lezotte's findings have implications for educational adequacy, of particular importance is the last finding regarding the impact of compensatory educational programs. This finding, consistent with other research findings, suggests that the effective school is one in which the familiar accoutrements of compensatory education are diminished or lacking. When the classroom teacher has fully accepted his or her responsibility for the educational outcomes of all students in the classroom, the familiar compensatory educational programs that pull students out of regular classes may represent disruptions to the effective educational program. Since it is commonly assumed that instructional programs can be made adequate for low-achieving students by loading on more compensatory education programs, this finding and others like it should have a substantial impact on educational policy regarding educational adequacy. I do not suggest that no additional

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resources are necessary to move some classes of students toward educational adequacy. However, the additional resources may be in the form of money to support staff development programs that promise to inculcate the strategies and techniques of effective schooling.

Finally, the studies by Edmonds and Frederiksen (1978) identify tangible and indispensable characteristics of an effective school:

1) They have strong administrative leadership without which the disparate elements of good schooling can be neither brought together nor kept together.

2) Schools that are instructionally effective for poor children have a climate of expectation in which no children are permitted to fail below minimum but efficacious levels of achievement.

3) The school's atmosphere is orderly without being rigid, quiet without being oppressive, and generally conducive to the instructional business at hand. Effective schools get that way partly by making it clear that pupil acquisition of basic school skills takes precedence over all other school activities. When necessary, school energy and resources can be diverted from other business in furtherance of the fundamental objectives.

4) The final effective school characteristic to be set down is that there must be some means by which pupil progress can be frequently monitored. These means may be as traditional as classroom testing on the day's lesson or as advanced as criterion-referenced, systemwide standardized measures. The point is that some means must exist in the school by which the principal and the teachers remain constantly aware of pupil progress in relationship to instructional objectives.

Certain school systems have begun to apply the above-outlined principles of school effectiveness in remedying the problems they have with low-pupil performance. For example, the Denver Public Schools launched an attack on reading problems in their elementary schools, employing many of the school effectiveness techniques (Davidson, 1979). First, local school staffs inspected the Gates McGinity Reading Test results, recognized the reading achievement problems, and became committed as an entire staff to correct them. Materials were selected because of their stress in the basic skills. A significant amount of preservice and inservice training was required of participating staff members. Continuous evaluation was part of the project; results were periodically analyzed and corrective action was taken when necessary. Most importantly, however, the individual school faculties believed that improvement was possible for all the children, and this improved expectation is thought to have been related to the substantial improvement in test scores. For example, in 1973 the mean grade equivalent score on the Gates McGinity test for fourth-grade students was 3.4. By

1978 this mean score equivalent for grade 4 pupils had risen to 5.7. The associate superintendent argues that the encouraging outcomes are "largely attributable to a committed and skillful staff, the full support of the administration and Board of Education, and the presence of other essential elements discussed in this article. Significant changes in schooling occur when simplistic approaches are rejected in favor of a carefully developed, long-range strategy that incorporates these variables" (Davidson, 1978). The variables referred to are the factors researchers have discovered to be associated with effective schooling.

In the spring of 1979 the Milwaukee Board of School Directors recommended that the superintendent identify the twenty lowest-achieving elementary and middle schools in the city and initiate instructional improvements that would bring student performance in those schools up to national norms. A task force was formed, consisting of central office staff and principals of the schools whose test scores indicated that they had a large percentage of students in the low classification. This task force developed plans for improving the low-achievement schools in the areas of reading, mathematics, and language arts. The program was dubbed Project RISE (Rising to Individual Scholastic Excellence). From this beginning Project RISE has grown to become one of the nation's most substantial pilot projects experimenting with instructional effectiveness theory.

In 1979 the RISE schools had all of the familiar and disheartening aspects of inner-city schools: high student mobility (up to 70 percent turnover each year), low socioeconomic status of the minority student population, low teacher morale, and the absence of significant parental support.

During the latter months of the 1978-1979 school year and continuing throughout the 1979-1980 school year, staff development sessions were held for principals. It was felt that the success of Project RISE would ride with the ability to change the attitude of principals and commit them to the task of educating all of the children. In weekly sessions the principals reviewed the research relative to effective schooling and became familiar with strategies for improving basic skill instruction in their schools. They came to understand the essentials of effective schooling, such as the strong instructional role of the principal, the high expectations necessary for all staff members, the establishment of an orderly and productive climate, and the needed emphasis on the teaching of the basic skills. They also began to deal with the topics of direct instruction and some of its derivatives, such as accelerated learning and engaged time on task. Most of the RISE principals volunteered to meet regularly in inservice meetings held by a University of Wisconsin-Milwaukee professor on the subject of the school administrator's role as an instructional leader. In addition, Wilbur Brookover and Ronald Edmonds both were invited to review their research with the RISE principals and others.

A key aspect of the RISE Project was the development and implementation of individual school plans that, while adhering to the basic tenets of instructional effectiveness, were adoptions and adaptations of successful practices in other schools throughout the nation. After the RISE Coordinating Committee reviewed exemplary programs through the National Diffusion Network, certain programs were selected and their representatives were invited to explain their program before a group of RISE principals and staff members in the spring of 1980. The Exemplary Center for Reading Instruction Program (ECRI), the Behavioral Analysis Program, and other programs were presented to stimulate the thinking of the RISE staff regarding the design of their program for the following year. In the fall of 1980 each school presented its plan and identified the instructional areas that the plan was intended to attack. Some adjustments were made in instructional materials, with many schools deciding to adopt a basal reader approach. Some of the schools adopted one of the programs they heard about through the National Diffusion Network, while others augmented their present program in order to accommodate the elements of instructional effectiveness.

On the first day of school in the 1981-1982 school year the deputy superintendent of schools presented to the entire school system staff a videotape developed by the Association for Supervision and Curriculum Development entitled, "Teacher and School Effectiveness" (ASCD, 1981). He also took that occasion to report the overall results for the RISE schools as measured by standardized tests in both reading and mathematics. The students were tested in the spring of 1981. The first-grade results were compared to the national sample in three performance categories: high, average, and low. Included in the low category were results in the first three stanines; the average category were the results that fell in stanines four, five, and six; and the high category with results that fell in stanines seven, eight, and nine. Results are shown in the accompanying table:

Performance Categories	National Sample Percentages	First Grade Reading Percentages	First Grade Math Percentages
High	23	24	26
Average	54	57	63
Low	23	19	11

These metropolitan achievement test results in reading and mathematics demonstrate the effectiveness of the project in bringing overall student performance in the RISE schools to a level that slightly exceeded the national average in reading and substantially exceeded the national average in mathematics performance. The results for the other grade levels tested did not show the striking improvement that was recorded for first-graders. However, it was expected that the best results would be at the first-grade level, since the program in most instances was implemented developmentally beginning with kindergarten and first grade.

Aside from the statistical evidence of improvement, the testimonial comments made to the top administrators of the school system by the principals during the 1980-1981 year-end review were equally impressive. The principals spoke of their new interest in their job with almost a "born again" fervor. They also reported the excitement of their staff members, many of whom were for the first time experiencing instructional success with children whom they previously had felt were incapable of learning.

So far, this discussion of instructional effectiveness has focused on the school as the unit of analysis and on the factors that contribute to a more effective school environment. In terms of instructional technique that carries forth the notion of the universal capability of learning, we refer to the mastery learning movement based on the research of Benjamin Bloom (1976). Bloom holds that educators have tended to underestimate the ability of up to 95 percent of the learning population to master a given content. Bloom believes that low-achieving students may be helped to learn a particular subject to a given degree level of competence in approximately the same amount of time as their more gifted peers. However, in order for this to happen the objectives of instruction must be carefully delineated and the content of instruction organized in learning modules so that all students can progress continually. The writings of Bloom and Block (1973) have been implemented in a number of mastery learning environments, and one notable adoption of their technique has been made by Michael Katims (1979) in the Chicago Public Schools. The mastery learning concept is closely related to the competency-based education movement. It springs from the same assumptions that motivated the school effectiveness research; namely, that all students have the capability of learning, and that it is well within the ability of the schools to provide an adequate education for all students.

School instructional effectiveness literature contributes appreciably to our understanding of the potential for achieving educational adequacy. However, some limitations must be recognized. Most of the research on school and instructional effectiveness has focused on elementary school education. Because not as many secondary school studies have been made, the same kinds of assumptions about effectiveness may or may not be appropriate for high school-age students and their schools. Nevertheless, the studies that have been made, Fifteen Thousand Hours, for example, and its conclusion in favor of what is called "positive school ethos" seem to suggest that some of the same factors probably exist at the successful high school that contribute to successful elementary schools.

Another clear limitation of the applicability of instructional effectiveness theory to our understanding of educational adequacy lies in the concentration on basic skill acquisition when the theory is practiced. It is doubtful that in most communities the definition of an adequate education would be limited to basic skill acquisition.

Notwithstanding these limitations, the instructional effectiveness literature provides a vital linchpin in the understanding of educational adequacy as something possible to obtain for nearly all the children. Educational adequacy is well within the resources that society seems to be willing to give schools, but to create and maintain it, decision-makers must make the right kind of investments in educational programming.

The Financial Status of the Public Schools in the 1980s

S. B. Carmon writes, "The financial status of the public schools in the 1980s

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is not encouraging. Rising costs, coupled with declining resources, threatens the quality and quantity of educational services. While conditions vary among states, there are common pressures facing nearly every state, ranging from tax and expenditure limits to the financial and political fallout of declining enrollments. Across the states, variations in fiscal health threaten educational standards. Disparities in local and state wealth translate into unequal educational opportunities, and, unfortunately, fragmented state-by-state programs designed to address these inequalities have failed to remedy the situation" (Carmon, 1981).

Whether Carmon's pessimism is warranted depends on a number of factors, several of which are uncertain: inflation, enrollment decline, changing population demographics, private school influence, and political support. In no small measure, the level of public school support in the Eighties depends upon the ability of frequently warring education factions to come together in a common cause: the survival of public education. The current economic recession hits public institutions doubly hard. "Declining production and the resulting unemployment often cause income taxes to fall short of projections. Declining personal income may also lead to short-falls in the sales tax. At the same time, severe unemployment may cause increases in the case loads for welfare, unemployment insurance, or other social services. The consequent decline in cash balances often reduces interest income as well as making less money available for short-term investment. Typically, then, recession freezes state finances from both the revenue and expenditure sides simultaneously" (Odden and Augenblick, 1980).

"Between 1970 and 1979 the estimated number of individuals in the United States in the age range 5 to 17 fell by better than five million students, for a 10 percent decline" (Carmon, 1981). The impact of enrollment decline varies among the states, but most of them estimate continued decline throughout the mid-80s. At that point stabilization and possibly some slight increase are predicted. Since most aid formulas are based directly on the number of students enrolled, the decline in the number of students has a direct impact on financial resources. However, as important as this factor is, it may in the long run be less influential than the shift in the demographic characteristics of the population. Kirst and Garms (1980) demonstrate that the number of people with a direct stake in education is on the decline, and the only population sectors in which public school enrollments are likely to rise are among Hispanics and low-income groups. These groups presently exercise little influence in major financial decisions. In the meantime, there is an increase in the number of senior citizens, and their propensity to vote against increased school funding dims the prospect for adequate school funding in the future. "Thus the politics of school support in the 1980s will be . . . affected by a double whammy: Fewer people will have a direct interest in schooling and. . . a higher percentage of those who do have historically not participated in the political process" (Odden and Augenblick, 1980).

In the last decade the national expenditures per child for education increased 173.7 percent, from $657 at the start of the decade to $1,798 at the end. Even when inflation is factored in, the rise is 40 percent. While much of this rise in expenditures results from increased services to special populations of students, the fiscal base has grown for all students, the regular as well as the special child (Odden and Augenblick, 1980). Given the confluence of political, economic, demographic, and enrollment factors, it is unlikely that schools in the Eighties will enjoy the relative fiscal prosperity that marked the Seventies. It is difficult to estimate at this point just what influence the increased public support for private education and the political interest in tuition tax credits might have for the fiscal future for the public school system. Clearly, if private school support is provided by federal and state sources, it will ultimately be at the expense of public education. In the introductory pages of this paper I discussed the obvious impact that the present administration's reduced level of federal funding (in combination with the shift from the categorical to a block grant format) will have on the future of public education. Proposition 13 fever and the legislative requirements in some states that any increases in property tax or other expenditures be subject to voter approval make education the specific victim of a generalized taxpayer revolt. When the very ability of schools to stay open is at issue (as it presently is in states such as Michigan), then the difficulty in achieving even minimal educational adequacy is apparent.

However, in my discussion of the possible contributions that competency-based education and school effectiveness theory might make to educational adequacy, I noted that neither one of these approaches assumes significant increases in the base resources available to the schools. That is, unlike other educational reform movements, we are not talking about needs that must be satisfied through a major increase in dollar investment. In fact, I suggested that some compensatory education efforts--those characterized by "pull-out" programming--may actually inhibit the quest for educational adequacy. What the two types of educational reform do require, however, is an investment in human capital, an investment in the development of educators who can be more productive and efficient. Educators need to learn new techniques (or relearn old ones) and change their expectations. This approach has an industrial parallel in the Japanese production models (e.g., Theory "Z" and "quality circles"), which have influenced private sector production practices in the United States. The introduction of these ideas in American industries was hot costly, but in many instances had a revolutionary impact on productivity. The adage, "When you can't run bigger you have to run smarter," has never been more appropriate than now as we look toward the future of public education.

Conclusions and Implications

Arthur Wise (1976) pictured educational adequacy as a concept beyond school financial reform. State aid formulas might be adjusted, "new federalism" notions might change the format of federal aid to state and local schools, and local school boards might set varying tax rates. However, one should ask, are there state, federal, and local officials who sometimes ponder whether the levers they adjust are in fact connected to anything? What is it that really makes an education adequate or inadequate? When we concentrate on the things that seemed to make a difference in pupil performance, we come to focus on classroom and school practices as described in the instructional effectiveness literature and school system and state practices as represented by competency-based education and testing strategies. It may be that these are the levers that more directly are connected to educa-

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tional adequacy. Their adjustment is more subject to a commitment of spirit than a commitment of money.

I do not suggest that finance formula manipulations don't have a clear impact on the operation of local school systems; no one can deny the fact that a financial decision can literally close down a public school. But there does seem to be some special providence in the development of what appears to be a productivity factor in education at a time when increased productivity is the best hope for achieving educational adequacy. If additional resources are not to be made available, then that reality must be the motherhood of our own best invention to serve the educational needs of our society.

The good news in this analysis is that we have discovered ways of being more instructionally effective and that these means do not require education to be more labor-intensive than it now is. The good news is that we have state and local districts that are earnestly defining both school and life competencies in order to establish a new social contract with the public that promises competent learners as a reasonable return on investment. Just as the existence of instructionally effective schools in low socioeconomic neighborhoods forces the question, "Why can't all our schools be effective?," so does the realization that the means of getting the job done in education are at hand leave educators to ponder why the job is not getting done. If success exists in one place, who can excuse failure in other places?

There are still gaps, of course, in our understanding of school effectiveness. We are unsure of the purposes and instructional techniques necessary for an adequate high school education. This realization could account for the plethora of high school studies now being conducted by such groups as ASCD, the John Dewey Society, and the Carnegie Foundation. Nowhere can we guarantee that, once techniques are determined, we can rest on our laurels. Adequacy is not a universal constant, nor is it a synonym for excellence. Educational excellence is in fact the goal and educational adequacy the minimal standard in pursuit of that goal. If adequacy becomes the goal, then we commit the cardinal sin of making a maximum out of an intended minimum.

What federal policies and practices, then, are most likely to achieve educational adequacy for all students? First and foremost, the federal authority needs to support instructional effectiveness activities at the state and local level. Similarly, the efforts on competency-based education and testing ought to receive fiscal support from federal authorities. This would also presume the necessity for federal support in disseminating the results of successful practices among the states and districts. I have mentioned the need for a better definition of purpose and technique at the high school level. The federal authority should not only support high school studies, but also sponsor the dissemination of the results of the studies now in progress.

Educational adequacy is dependent on the more-than-adequate teacher. Teachers, administrators, and others in education need the retraining that is going to make them more productive and effective with students. A federal role in support of retraining programs would seem an appropriate investment in the youth of this country.

The current trend toward block grants rather than categorical grants is a sensible movement. However, the rather dramatic reduction in federal support that must be absorbed within a single year is going to have dire consequences for those that have relied heavily on federal support: namely, the urban sector.

We should still expect to have some areas of categorical funding for such groups as handicapped students and limited-English-speaking students (for example), who have needs that can't be completely met by the application of competency-based education nor instructional effectiveness theory. However, it would clearly be in the best interests of students who now qualify for Title I funding to be served by the whole school environment dedicated to effectiveness. It is now recognized that compensatory education programs have had some beneficial impact on Title I-eligible learners. However, one must ask whether that money might better have been invested in changing teacher expectations and classroom techniques to make the responsibility for improved performance for minority and low-income students the responsibility of the whole school rather than the isolated responsibility of something called the Title I program. Categorical funds that result in "pull-out" programming for students are simply not the best investment to make on behalf of the intended target students.

Finally, federal policy must not become so enraptured with the pursuit of adequacy that it loses the goal of excellence. Certain programs in our schools attempt to provide students with experiences that take them beyond the adequate, and these programs and experiences need our support. The federal government should continue to provide special support for the arts. It should support gifted and talented programming that inspires our youth to reach toward the limits of their potential. If the pursuit of adquacy results in a homogenization process, the loss to our children and society will be considerable.

REFERENCES

Alschuler, A., & Flinchum, G. Raising Minimum Competencies. *Phi Delta Kappan*, May, 1979, *60*, 9.

Amos v. Board of School Directors of the City of Milwaukee, 408 F. Supp. 765, 818 (E. D. Wis. 1976).

Augenblick, J. *School Finance Reform in the Study: 1979*. Denver: Education Commission of the States, 1979.

Bell, T. *Secretary Bell urges tougher standards for teachers*. *Education Week*, November 16, 1981, *1*, 11.

Bennett, D. A. *Impact of Chapter II Funding on the Milwaukee Public Schools*, Unpublished memorandum, 1981.

Block, J. *Mastery Learning in the Classroom*. Paper presented at the American Educational Research Association meeting, New Orleans, February, 1973.

Bloom, B. *Human Characteristics and School Learning*. New York: McGraw-Hill, 1976.

Board of Education v. Nyquist, 94. Misc 2d 466

Brickell, H. M. Seven Key Notes on Minimal Competency Testing. *Educational Leadership*, April, 1978, *35*, 551-557.

Brookover, W. B., & Lezotte, L. W. *Changes in School Characteristics Correlated with Changes in Student Achievement*. College of urban development, Michigan State University and the Michigan Department of Education, 1977.

Buckmiller, A. A. *Competency Based Education Issues and Implications*. Madison: Wisconsin Department of Public Instruction, 1979, *7*, 1.

Carmon, S. B. *Financial Status of the Public Schools*, 1980. West Haven: National Educational Association, 1981.

Christian Science Monitor. March 30, 1981, *Section B* 3.

Davidson, R. L. Declining Achievement Can Be Reversed. *Educational Leadership*, December, 1979, *37*, 3.

Debra P. v. Turlington, 644 F. 2d 397 (5th Circuit), 1981.

Edmonds, R. Effective Schools for the Urban Poor. *Educational Leadership*, October, 1979, *37*, 1.

Edmonds, R. *Search for Effective Schools: The Identification and Analysis of City Schools That Are Instructionally Effective for Poor Children*, Harvard University, 1978.

Education Daily. Comments by Gene Glass. May 10, 1978, 6.

Graduation Competency Committee Report. Unpublished report available through the Milwaukee Public Schools. 1981.

Hartman, A. S. Minimum Competency Without Tears. *Compact*, Summer, 1981, *15*, 2.

Hodgkinson, H. What's Right with Education. *Phi Delta Kappan*, November, 1979, *61*, 159-162.

Katims, M. Unsystematic Observations on Success. *Educational Leadership*, November, 1979, *37* 2.

Kirst, M. W., & Garms, W. I. *The Demographic Fiscal and Political Environment of Public School Finance in the 1980's*. Policy Paper No. 80-C1. Stanford University: Institute on Educational Finance and Governance, March, 1980.

Madden, J. V., Lawson, D. R., & Sweet, D. *School Effectiveness Study: State of California*. 1976.

McClung, M. S. Are Competency Testing Programs Fair? Legal? *Phi Delta Kappan*, February, 1978, *59*, 397-400.

Milliken v. Bradley 418 U. S. 717, 41 Lawyer's Edition Second 1069 or 94 Supreme Court 3112, 1974.

National Conference of State Legislatures. *The Fiscal Letter*. Denver: NCSL, September/October, 1980.

Neill, S. B. *The Competency Movement--Problems and Solutions*. Sacramento: American Association of School Administrators Critical Issues Report, 1978.

Pinkney, H. B. The Minimum Competency Movement in Public Education. *Clearing House*, May, 1979, 52, 9.

Popham, W. J., & Ranklin, S. C. Minimum Competency Tests Spur Instructional Improvement. *Phi Delta Kappan*, May, 1981, *62*, 9.

Project RISE, School Expectation Project. Unpublished report available through the Milwaukee Public Schools. 1980.

Regan, W. B. *Modern Elementary Curriculum*, 3rd Edition. New York: Holt, Rinehart, & Winston, 1966

Rockler, M. J. Competency and Creativity--Can We Have Both? *Curriculum Review*, December, 1979, *18*, 5.

Rodriguez, J. Speech made in Indianapolis at Department of Education conference on the Educational Consolidation Act. October 22, 1981.

Rossmiller, R. Unpublished paper (University of Wisconsin, Department of Education). 1981.

San Antonio v. Rodriguez, 411 U.S.I. (1973).

Sarrano v. Priest (I), 5 Cal 3d 584.

School Factors Influencing Reading Achievement: A Case Study of Two Inner-City Schools. State of New York, Office of Education Performance Review, March, 1974.

School and Teacher Effectiveness. Videotape available through the Association for Supervision and Curriculum Development, 1980.

Task Force on Educational Assessment Program. *Competency Testing in Florida: Report to the Florida Cabinet* (Part 1). 1979, *4*.

Turlington, R. D. Good News from Florida: Our Minimum Competency Program is Working. *Phi Delta Kappan*, May, 1979, *60*, 9.

Tyo, J. Competency-Based Education. *Clearing House*, May, 1979, *52*, 9.

Washington v. Davis, 96 S. Ct. 2040 (1976).

Weber, G. *Inner City Children Can Be Taught to Read: Four Successful Schools*. Washington, D. C.: Council for Basic Education, 1971.

Wise, A. E. Minimum Educational Adequacy: Beyond School Finance Reform. *Journal of Education Finance*, Spring, 1976. *I*, 468-483.

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ADEQUATE SCHOOLING FOR AMERICAN CHILDREN AND YOUTH

By E. L. Whigham and E. P. Magann

THE MEANING OF ADEQUACY

A continuing imperative in a democracy is development of the consensus necessary for effective action; yet, at the same time, democracy encourages responsible dissent and continuing efforts to change and improve established institutions and practices. The practical application of these democratic principles is currently apparent in the United States where there is once again unusual concern about national effectiveness. In this period of doubt and uncertainty, no agency, institution, or public official is exempt from sharp public questioning and criticism. The challenge to the people and the nation's leaders is how to resolve the problems that create this concern while preserving the achievements of American society.

Concern and challenge are nowhere more evident than in elementary and secondary schooling. There is vigorous debate about the schooling now offered: Is it satisfactory for contemporary and anticipated conditions and requirements? Almost every facet of schooling is subjected to scrutiny, but major attention is directed to four areas: the quality of learning, the limitations on educational opportunity, the magnitude of expenditures, and the governance structure for determining educational policies and practices.

While these concerns reflect the traditional American faith in the social value and economic utility of schooling, it is doubtful whether most citizens are able to separate the sound and potentially useful ideas being proposed from those based on misperception and incorrect information. The word education, which in its generic meaning encompasses all of the learning experiences of individuals, is often used as a synonym for schooling. The result is that the educational responsibilities of the schools are not differentiated from those of other institutions. That public doubt and uncertainty are creating serious confusion in the nation's sense of direction for schooling can no longer be denied. To remedy this situation, many citizens and public leaders, and educators as well, are calling for a renewed sense of quality in schooling, and the term "adequate" is frequently used to describe the level of quality thought necessary.

How is this proposed adequacy to be understood? Two types of approach are common. One is to identify deficiencies in existing schooling and to call for remediation. Thus, for example, some proponents of the schools contend that the causes of current problems are misunderstood and misrepresented; schooling will be adequate, it is said, if only additional funding is made available. The second type of approach is to propose comprehensive reforms in schooling. Major changes must be made, it is said, in the philosophy, practices, and management of schooling. Certain proponents of reform, for example, contend that impending developments in national and world affairs require comprehensive changes in schooling. Some advocate competitive alternatives to the existing system of schooling. All such proposals, when thoughtfully prepared, merit careful attention. What is lacking in both types of approach, however, is a basis for evaluating whether the changes or reforms advocated will provide adequacy in schooling.

There is need for better understanding of what is involved in determining the adequacy of elementary and secondary schooling. This paper examines that need. Its aim is to delineate a conceptual basis for determining the meaning of adequacy, the components of the concept, and the necessary conditions for its realization. Rather than offer a comprehensive and specific plan for school reform, we seek to establish a means of examining both the existing system of schooling in the United States and proposed reforms of that system.

To declare schooling to be adequate is to state, by intention or by implication, a conclusion about outcomes that are acceptable. It is a confusion of thought to say that adequacy can be created only under certain conditions or with particular practices without attention to the purposes of schooling. What, then, is adequacy and how is it to be attained? The first step in responding to that question must be an examination of the meaning of adequacy: the definition of the term, the purposes to be pursued, and the programs to be adopted. It is in purposes and programs that the basic criteria for judging adequacy are to be found.

Defining Adequacy

The term "adequate" is commonly used with varied and very general connotations. Specificity in meaning and consensus of understanding are required if the term is to satisfactorily designate the quality desired in schooling. Implicit in "adequate" is this question: Adequate for what purpose? When purposes are made explicit, then adequacy may be defined as the achievement of those purposes. If the intended purposes are being achieved, then schooling is adequate. If they are not, schooling is inadequate.

This definition, as simple as it may seem at first, is extremely important and is basic to the resolution of much of the current confusion and debate. The contention about the quality of schooling is riddled with confusion stemming from the failure to distinguish the ends or purposes of schooling from the means or process to be used to achieve the desired results. The term "adequate" can be applied only to the means of schooling. Purposes may be satisfactory or unsatisfactory, desirable or undesirable, appropriate or inappropriate, worthwhile or worthless; but they cannot be adequate or inadequate. Agreement on purposes must precede any useful discussion of the means or process of schooling; therefore it must precede any detailed consideration of adequacy.

The Purposes of Schooling

Two considerations make the development of purposes for schooling a challenging task in the United States. First, determination of purposes is basically a political process. Although Americans tend to hold many social goals in common, they also tend to hold strong differences of opinion about how those goals are to be given practical application in institutions such as the schools. The purposes of schooling are not derived exclusively from the professional knowledge of experienced educators, the thoughtful influence of leaders in public affairs, or logical deductions from the conceptual goals of society.

The expectations and opinions of the people also must be considered, for official goal-setting for the schools is a process of pragmatic politics. Second, in the United States the official promulgation of purposes is a state and local responsibility and therefore reflects a greater range of beliefs and influences than would characterize a centralized system of governance. The nation lacks established agencies that are recognized and accepted as sources of guidance in identifying common national needs in education and in establishing broad national goals for the schools.

Even so, a nationwide trend in public expectations for schooling is historically discernible. The trend is seen in the changes in the purposes of schooling formalized by the official representatives of the people in the course of the nation's development. Because public expectations grew as changes in public thought occurred, the trend through the years has been an expansion of purposes. This trend has resulted in public expectations for schooling that today cannot be fulfilled, and the contention stemming from that failure is a major cause of the cacophony of criticism now being directed at the schools.

In the formative years of the nation's history, the purpose of schooling was limited to the development of a literate citizenry. Usually only the rudiments of literacy were taught, and the other practical requirements for successful living were learned on the job, in the family, and in the community. As the nation matured, we gradually added the purpose of bestowing an Americanized notion of culture on those young people to whom the opportunity for schooling was available. Although discipline, i.e., behavior, was often a serious school problem in the nation's early history, instruction was usually rigidly formal in method and academic in content.

As national life became more complex, the purposes of schooling were modified in accordance with varying views of educational needs and differing conceptions of the developing American version of a democratic society. Marked regional differences in schooling, apparent from the beginning, continued to be significant. In each region, school policies shifted between liberal and conservative emphases. Although liberals and conservatives share many convictions and visions of what democracy means for America, the interplay of the two orientations through the years has produced two rather distinct versions of the promise of the nation, and both are reflected in the schools.

In the conservative perspective, America is seen as the land of liberty, private initiative, and limitless opportunity. The full promise of that opportunity is thought to be open to all persons with the courage and initiative to take risks and the enterprise and persistence for hard work. When translated into schooling, such views tend to favor policies such as preparation in the knowledge and skills required for success in life, disciplined application to the studies offered, advancement on the basis of achievement, and the decentralization of school governance. Egalitarianism--in the sense of guaranteed status and security regardless of effort and quality of performance--is rejected, as are derogation of outstanding achievement, passive conformity, immediacy of enjoyment, and control of public decisions by mass popular opinion.

In the contrasting liberal view, the emphasis is on values and conclusions such as the following: humanitarianism; social responsibility; freedom and openness in society; the fallibility of human intentions, beliefs, and institutions; planned social change; a secular approach to political and social affairs; equality of opportunity; and the progress of human knowledge. Liberals generally have favored policies such as universal opportunity for schooling, a broad curriculum, sensitivity to individual needs and interests, the development of sound interpersonal and intergroup relations, and the consideration of effort as well as performance results. Liberals emphasize that each individual has a contribution to make to society and affirm the Jeffersonian declaration of each person's birthright to "life, liberty, and the pursuit of happiness."

This and other characterizations of the two perspectives can be misleading, for neither constitutes a coherent ideology and both represent a less-than-stable amalgam of diverse and sometimes conflicting individual and group thinking. They are distinctive views, however, and the pendulum of their influence on public affairs swings back and forth in American history. The ability to accommodate both views in a common society is perhaps a mark of the genius of America. That both perspectives have been used on occasion for selfish personal ends does not negate their continuing value and appeal.

In the twentieth century the nation's social ideals and its purposes for schooling had to face even greater challenges than had been previously experienced. The Industrial Revolution and the transformation of business and commerce were accompanied by such changes as mass production, urbanization, economic crises, international conflicts, higher standards of living, and demands for universal opportunity for education. Schools were hard pressed to provide the educated manpower required for those developments; for informed understanding of the complex scientific, economic, political, and social changes that were occurring; and for the programs and resources necessary for the increasing enrollments created by universal schooling and immigration. As changes to meet these challenges were made in schooling, many citizens mistakenly began to think of schools as having total responsibility for the education of young people--a development that eventually was to bring serious misunderstanding.

Changes also were being initiated from within the ranks of educators. Progressive educators, challenging the rigid formality and the educational effectiveness of traditional schooling, called for primary attention to the development of what were seen as desirable social behaviors and values. Advances in knowledge about the growth patterns of children and adolescents led to demands for increased attention to the individual needs and interests of pupils. Out of the depression and war years came the comprehensive school as the model for American schooling.

Despite the nation's social and economic progress, at mid-century many Americans became restless and dissatisfied; and often pupils as well as parents questioned the relevance and the value of schooling. The incidence of youthful delinquency began to be a serious national problem. Yet, except for the "revolt" of youth in the 1960s, the number of young people entering higher education was at an all-time high. At mid-century the nation began, at first slowly and often with strong resistance, the process of eradicating racial and several other forms of discrimination, and schools became the primary institutional means for accomplishing that societal objective. Effects of the "Cold War" in international affairs, the "Space Age," and the national "War on Crime," for example, resulted in additional demands being placed on the schools. In the 1960s, in a continuing tide of liberal ascendancy, the purposes of schooling were further expanded to address the objectives of "the Great Society." The combined burden of these demands and expectations was to bring severe repercussions.

That the schools were unsuccessful in meeting the increased demands and expectations is, in retrospect, not surprising. Many of them far exceeded the capabilities of the schools. Almost always, sufficient resources for the added responsibilities were insufficient; and as schools began efforts to comply with what was expected of them, their budgets began to be seriously eroded by inflation and other economic problems such as energy costs. Vital time and resources had to be diverted from traditional purposes. Most significant of all, public support for the changes mandated in schooling began to decline as the nation experienced a major conservative swing in the political pendulum and as public resistance to many of the changes mounted. In the 1970s, with increasing evidence that schools were no longer (if they ever were) bringing all pupils to the desired level of literacy, influential voices began to call for a "return to the basics." Charges were also made that schools teach "secular humanism." When national evidence of a serious problem in public morality became conclusive, the public's questioning of all institutions in American society reached a level of historic significance.

By the beginning of the 1980s, schooling in America, especially public schooling, faced a serious crisis of public confidence. Fundamental changes in purposes and competitive alternatives to the predominantly public system of schooling began to be openly discussed and advocated. In the light of this situation, a thorough reconsideration of purposes would seem to be imperative if the consensus and public support essential to successful schooling is once again to prevail. Without consensus on purposes there can be no acceptable basis on which to determine what constitutes adequacy in schooling.

Reexamination of purposes and the development of a consensus may not be as difficult as the current disarray seems to indicate. On most of the basic educational requirements of the modern American society, strong national leadership, when effectively manifested, may be able to forge a base of agreement and support. In the review of purposes, however, one criterion should be paramount: Schools must be made responsible only for those purposes they are better suited and more appropriately prepared to achieve than are other institutions of society.

The American way of life would collapse without a literate citizenry. Universal literacy is requisite for the nation's economy, governance, and culture. No other institution has the mission of ensuring literacy and none is as well prepared to do so as is the school.

Next to literacy in importance for national effectiveness is preparation for sound citizenship. The nation's political and economic system, its other institutions, and its culture will not survive unless the meaning and the spirit of democracy are understood and embraced by a substantial majority. Democracy is a powerful but fragile way of social living, and belief in its tenets must be renewed in each generation of citizens. The freedom and the individuality, as well as the common endeavors needed and encouraged in the American way of life, can be sustained only from a base of shared knowledge, understandings, attitudes, and values. The continued strength and vitality of the American way of life rests on the proper preparation of the young, not only in the schools but also in the homes, the churches, the communities, the workplaces, and the other institutions and agencies of the nation. However, the schools are better prepared than other institutions to instruct the young in the systematic understanding of the meaning of democracy and the institutional structures and social practices required for its existence and continued strength.

More than literacy and sound citizenship are required, however, if the nation is to sustain its present levels of living standards and economic productivity, to meet the internal problems of a complex "post-industrial" society, and to repel external threats to its continued existence. To do so, the nation must have an educated citizenry in a sense beyond the basics of literacy and citizenship. Young people must acquire the scientific, technological, and other knowledge and skills needed to sustain and advance the nation's capacity for material productivity. At the same time, it is important that the young develop the creative capacity to extend the nation's spiritual aspirations and hopes for all persons. While the knowledge base for this productivity and creativity must be laid in the schools, all other institutions must join with the schools in instilling in the young the motivation and the incentive to be productive, thoughtful, and informed contributors to the American way of life.

Needless to say, these are very practical purposes for schooling; their importance comes from the practical necessities of shared living in a common society. However, other purposes for schooling are equally essential. Those purposes arise from the nation's belief in the worth and dignity of each individual and the national commitment to the opportunity for each person to develop in accordance with his own nature, beliefs, and inclinations. Although these ideals have never been realized completely, neither have they been forgotten. The frustration of this individuality has potentially serious personal and social consequences. Schooling, as a matter of policy, must encourage and provide the opportunity for pupils to develop their unique individual potentials; and schools must foster respect for individual and group differences.

The two perspectives, societal and individual, are not mutually exclusive. They can be and should be complementary. Adequacy in schooling must be understood to include the development of the unique potentials of pupils in their own individualistic, creative ways as well as the preparation of a literate, productive citizenry.

Finally, schooling is not merely preparation for the future, although that is important too. Fundamental human needs of students must be met during the 12 to 16 years they are in school. The need to learn to work effectively with other people and to be responsible for productive contributions to home, school, church, and community, for example, must be recognized in plans and purposes for schooling. Particularly important is that pupils find personal satisfaction in their lives and be stimulated toward self-actualization.

It is believed that the purposes sketched above must be recognized in any plan for adequate schooling. While they will not satisfy fully all segments of public opinion, they are consistent with the practical needs and the ideals of the nation. Although broad in scope, they are sufficiently delimited to permit practical implementation in the schools. Given proper leadership, both nationally and locally, it is probable that public acceptance of this set of basic purposes can be gained without the many special interest trade-offs that in the past have made a patchwork of schooling. State and local officials who find these purposes incomplete can expand the efforts of the schools in accordance with their perceptions of national needs and the expectations of their constituencies.

If consensus on these institutional purposes can be reached, a basis on which to determine whether schooling is adequate is available. To that basic component of the meaning of adequacy must be added another: agreement on the programs to be offered and the objectives to which those programs are to be directed. This also must be accomplished in a manner that permits diversity in local decision-making as well as creative practical implementation.

Programs and Objectives of Schooling

Agreement on purposes opens the way to meaningful consideration of programs. It is in the design and implementation of the programs of schooling that the question of adequacy may be directly addressed.

Purposes provide the basic criteria for program selection, but because purposes by their very nature must be stated in general terms, additional direction for the practical efforts of the schools must be provided. This should be accomplished by preparing an explicit statement of objectives for each program and for each level on which the program is to be offered. Objectives are most helpful when they are stated in terms of the quality and level of desired program results.

When agreement is reached on programs and their objectives, then the basic means are available for determining the adequacy of schooling--the basic means, but not the complete means, as later discussion of necessary conditions will show. The program objectives, when logically consistent with accepted purposes, are the primary indicators of adequacy. For example, assuming that a particular school is offering the programs required to fulfill its official purposes, the extent of school adequacy is the extent to which the objectives of all the programs offered are being achieved. Schooling in the United States cannot be adequate until all pupils are properly enrolled in programs that fulfill the officially stated purposes of schooling and until the pupils generally are attaining the objectives of those programs at a desirable or acceptable level.

Institutional purposes establish the areas in which educational programs should be offered; and, as previously noted, those areas must be carefully limited to prevent the "overloading" of schooling. Beyond the application of the general criteria posed by purposes, many other practical decisions in program design and implementation must be made. Those decisions should be based on a careful balance of public expectations, professional study and judgment, and the knowledge gained from operating experience in schooling.

If pupils were identical in their aptitudes and motivations and if community characteristics and beliefs were the same in all parts of the nation, program development might be a fairly simple task. Because that is not the reality with which schools must cope, program development is a difficult and demanding responsibility. Even when there is agreement on purposes, groups often reach differing conclusions about the details of the programs needed and the means of implementation.

With decentralized school governance in the United States, the meaning of adequacy would be very diverse if all that were available were the decisions about programs and objectives made by state and local school officials. Fortunately, more is available as a result of the extensive experience of American schools in the field of program development. It is possible to use the statement of purposes presented earlier to identify basic program elements that should be present in any plan for adequate schooling. A brief review of those program elements follows--but in only enough detail to indicate the nature and direction of adequacy in programming. For practical use in the schools, far more extensive analysis will be necessary; for in each of the programs, specific curricula and objectives must be prepared for the various learning levels as pupils progress through their elementary and secondary schooling.

The basic skills program. The first priority in schooling must be that pupils acquire the basic English language skills of speaking, reading, writing, and listening, and the basic arithmetic skills necessary for the application of number and quantitative concepts. In both areas virtually every pupil must develop the basic skills required for social literacy (the ability to engage in the practical tasks of everyday living) and for continued learning in school. By the time the pupils leave school, they must have developed fully the adult level of basic skills required for citizenship, employment, and personal living.

Most pupils develop these basic skills during the first six or seven years of schooling. For those who do not, special developmental and remedial instruction must be made available. Once a prescribed minimal level of competency is reached, the development of the basic skills must be continued at progressively more advanced levels to the full potential of all pupils, with basic skills instruction being combined with general education studies in the later years of schooling.

The early years of schooling are of critical importance in the learning of the basic skills and in providing the developmental foundations for further education. It is imperative, therefore, that the resources for these first years be sufficient for the responsibilities assigned to them and that the fundamental priority of the basic skills be recognized in the program development decisions and budgetary allocations of state and local school officials.

The general education program. The acquisition of basic skills is not sufficient for adequacy in schooling. The second highest priority in schooling must be general education. Through this program, the largest and most complex to be offered, pupils must be given the opportunity to acquire an organized understanding of the world in which they live and their responsibilities in that world. Also, pupils must be helped to identify their special talents and to develop them.

The primary objective of the general education program must be intellectual or cognitive development of pupils. Because of the wide range of scholastic aptitude among young people, the systematic studies of general education, particularly in later years, must be differentiated for varying levels of interest and prior scholastic achievement. All pupils should be expected to learn the basic duties and responsibilities of citizenship as well as the essential features of the private enterprise system. Common learnings also should include a general understanding of the surrounding world. For most pupils, additional learning should be acquired through selective but systematic study of the sciences, mathematics, the humanities, foreign languages, the arts, history, technology, and the practical wisdom of mankind. The basic intellectual skills appropriate to each area of study must be learned; and pupils must gain experience, appropriate to their levels of maturity, in the analysis and formation of conclusions for contemporary social, economic, and political problems. For those preparing for college or other forms of postsecondary education, rigorous academic preparatory studies should be offered in the last three or four years of schooling. In addition to academic studies, pupils should have experiences such as the following: development of special talents and special educational interests, career exploration and the preparation of personal career plans, leadership development, and the development of sound interpersonal and intergroup relations.

Vocational education program. Pupils who do not plan to pursue postsecondary education upon leaving school must be provided with experiences leading to job placement. In the last three years of secondary schooling, those who want to pursue a trade or technical occupation and who are qualified on the basis of scholastic achievement and aptitude should be placed in the vocational education program. The particular vocational curricula to be offered should be determined by job opportunities in the locality and the relative mobility of the pupil population. Since direct preparation can be offered at the school for only a limited number of occupations, cooperative work experiences should be used to prepare pupils for other occupations and to enrich curricula offered at school. Job placement and success on the job should be the objectives of the vocational program and hence the criteria for program evaluation.

Education for the handicapped. Educational objectives for handicapped pupils should be the same as those for other pupils except for the special services and training required because of their handicaps. Most schools will need to have special programs for the specifically learning disabled, speech impaired, and mentally retarded because of the greater incidence of those handicaps. If the incidence in these areas is low and when numbers are few in the other recognized areas of handicaps, cooperative efforts with other schools and special placements must be arranged. For their healthy growth and development, the handicapped must be offered education in regular school environments to the extent possible. Placement in regular classes should be made for most or at least part of the day, if at all feasible; however, the education of the handicapped must not be allowed to disrupt the education of the mainstream pupil population. The schools must provide education to meet the national commitment of equal opportunity for the handicapped; however, if recent legislative and judicial mandates of almost unlimited services for these pupils are to be implemented despite established priorities for schooling, funding for those extended services must be assured beyond that provided for other programs in the schools.

Program for the disadvantaged. Some pupils are unable to achieve satisfactorily in school because of the social and cultural deprivations in their backgrounds. They are ill prepared and poorly motivated for the learning experiences of formal education. Three categories of such pupils are now commonly identified: those from very restricted economic backgrounds, those from migrant families, and those who have suffered severe racial discrimination. Certainly the schools must be a part of society's effort to alleviate the cumulative effects of the cultural limitations created by these forms of deprivation. The objective of the program for the disadvantaged should be to help each pupil acquire the interest and motivation for continuing in school and to build the perceptual and conceptual foundations for school learning. Special instructional and supporting services to attain those objectives should be provided. The priority for this and other special programs (handicapped, non-English-speaking, etc.) should be secondary to the priority for the basic skills and the general education program, i.e., public officials should embark on these special programs, as desirable as they are, only after the basic programs are satisfactorily supported.

Program for the non-English-speaking. An increasing number of non-English-speaking and limited-English-speaking young people are enrolling in American schools. A program to assist them to acquire facility in English must be offered if they are to be successful in school and if they are to become productive citizens. Although the objective of proficiency in English must be primary, it will be a serious mistake and a repetition of poor judgments in the past if these pupils are permitted to grow up without the opportunity to learn to read, write, and speak their native language and to acquire an understanding of their native cultural heritage.

Other programs. Programs for schooling have been greatly expanded in recent decades as the result of pressures arising from contemporary social developments, advocacy by special interest groups, and responses by the state and federal governments in the form of categorical grants. The extent to which these programs are to be continued and expanded is a decision to be made by the public, but the decisions must be made with regard to the availability of financial and other required resources.

In recent decades there has been a large increase in the number of working mothers with preschool-age children. With kindergarten programs today an accepted part of education and available in most communities, the major problem for working parents with five-year-olds is child care before and after the regular school day. With younger children of working parents, the problem of child care is less well resolved. Whether schools are to have a role in the care of these younger children, programs are to be professionally planned and conducted, and services are to be provided from tax funds are issues on which the public is yet to make a decision.

In recent decades, also, serious misbehavior and criminal delinquency on the part of some youth have caused difficult problems for schools and for society generally. Juveniles guilty of serious criminal behavior must be the responsibility of the criminal justice system. What role schools are to have in the treatment of less serious offenders is another program decision that communities, in the absence of state and national policy, will have to make.

Similar types of decisions will be necessary at the state and local levels on continuing education (adult education), community education, and other programs. In the case of each program it is absolutely essential that the decisions be made only after a thorough study of the program's objectives and the consistency of those objectives with the official purposes adopted for schooling and the availability of required resources.

NECESSARY CONDITIONS FOR ADEQUATE SCHOOLING

The purposes of schooling, when based on a public consensus, provide the criteria for the selection of programs and the determination of objectives by professional educators. It is quite possible, however, to have well stated official purposes and objectives but be unable to achieve them because of problems with the resources and conditions necessary for their implementation. If there is to be adequacy in schooling, attention also must be given to the resources and conditions that are needed for practical school operations. Those needs include both human and material resources, and they extend from specifics such as the chemicals for the science laboratories to broad considerations such as strategies for effective instruction and the level of financial support that must be available.

The specific resource requirements for each program and each school must be considered in the detailed planning for that program and that school. Beyond those specific resource requirements, however, certain general conditions of schooling are universally necessary for adequacy. To illustrate the nature of those general conditions, we shall review four that are of contemporary significance. Two others, national leadership and school funding, are discussed in later sections of the paper.

Effective State and Local Leadership

Effective leadership by state and local officials is an especially critical condition for adequacy. This is so because those officials have the authority to mandate purposes, programs, and objectives for the schools and to allocate the resources required for their implementation. Most of the past achievements in American schooling reflect the leadership of outstanding state and local officials. Today, however, we see less and less of that type of leadership in school governance. Why this is so appears to relate to several current trends in the local governance of schools. Comparable problems also exist at the state level.

That there are problems in the quality of leadership of local officials was recently noted in a nationally publicized statement of the U.S. Secretary of Education ("Interview with Terrel H. Bell," 1981). There are problems in continuity of leadership as well as quality; both are essential. In recent years, administrators in schools and school systems have rotated in and out of leadership positions at an alarming rate. At the same time, we sense that experienced and established community leaders appear to be less willing than in former years to present themselves as candidates for school board membership or other public office. They are not willing to subject themselves to the abusive and accusatory rhetoric directed at school officials, nor are they willing to make the commitments apparently necessary for successful political campaigns and for serving the long hours expected of board members.

Instead of experienced and stable leadership, there appears to be a growing trend for persons representing special interest groups and those who are seeking to advance themselves politically to seek membership on school boards. Special interest groups can serve a useful purpose in calling the public's attention to particular educational needs, and political advancement through prior public service is not objectionable per se. What is objectionable is the use of a position on school boards for rigid advocacy of very limited concerns and the prostitution of educational welfare to political ambition.

Too often the balanced educational perspective essential to school effectiveness is undermined by special interest politics. That kind of leadership cannot govern a complex educational institution, for special interest rule, by its very nature, prevents the formation of consensus and militates against continuity and stability in administration. Educational statesmanship is replaced by special interest advocacy and the clash of political ambitions. The result is that a very complex and costly local institution, the school system, is too frequently governed by insecure, divided boards and transient, politically defensive administrators.

This situation is made even more difficult by the adversary relations between administrators and employee groups and the intervention in school politics by employee organizations. The point of concern is not the adversary nature of negotiations but the conflicting nature of all other relations. In too many instances employee organizations resort to litigation to solve problems that it should be possible to resolve by consultation if both administrators and employee representatives act in good faith. Of equal concern is the increased political activity by employee organizations aimed at electing board members and other public officials aggressively and unilaterally committed to the organization's point of view. The recurring result of these adversary relations is the exchange of charges and countercharges and other forms of conflict in public. Most citizens do not understand what is occurring, but the sharpness of the conflict creates serious questions in their minds about the quality of schooling.

These and similar problems in local leadership are giving rise to questions about the traditional forms of school governance. It may be that structural changes are needed to stabilize administrative services and assure sound, balanced lay control of the schools. Greater cooperation among leadership groups is needed, and preparation and inservice programs for management personnel must be improved. Citizen leaders and the news media must press for fair, sensible demands on the personal lives of public officials, for community recognition for impartial, high quality public service, and for balanced consideration of educational problems and needs. Such improvements are needed at the state as well as the local level as a necessary condition of adequate schooling.

Competence in Teaching

Schooling can be adequate only if teaching is competent. Many capable, dedicated teachers have served the schools in the past, and many continue to do so. Unfortunately, there are mounting indications that teaching is a troubled profession.

Today, perhaps more than ever before, the quality of teaching staffs is being questioned. In a way this is ironic because after a long period of a shortage of teachers beginning in the early Fifties, in recent years there has been a "surplus" in most teaching fields. Based on projected increases in school enrollment before the end of the 1980s and the current sharp decline in enrollment in teacher preparation programs, it is anticipated that a general shortage of teachers may again occur before the end of this decade. Most of the concern voiced about the quality of teaching, however, does not relate to supply and demand. Rather, it is professional competence and the quality of on-the-job performance that is being questioned.

If the public wants adequate schooling, it must be willing to make the commitments for getting and keeping competent teachers. One commitment must be economic, for teaching is a relatively poorly paid profession and is not attractive to the nation's most able youth. In the past it was at least an attractive career to females and minorities, but with the progressive elimination of discrimination in employment practices, other fields are now seen by those groups as more rewarding. Until the economic disadvantage of teaching is removed or alleviated, the talent required for outstanding performance in teaching will be siphoned off into other professions. It is a delusion to think that society can ignore or avoid this economic barrier to quality in education.

Making teaching economically and professionally attractive to young people is a commitment the public must make if adequate schooling is expected. Another is to provide those who choose to teach with collegiate preparation marked by excellence. Many states, in efforts to improve teacher education, are raising their standards for program approval, admission of students, and certification upon graduation; however, those changes are not being accompanied by the increased support for teacher education institutions necessary to implement the new requirements. In the very period when standards are being raised, teacher education institutions are experiencing declining enrollments, reduced funding, and challenges to the need for instruction in pedagogy. Until teacher education programs receive financial and other public support necessary for quality preparation--and this may require some reductions in the number of approved programs--the availability of competent professional personnel for the schools cannot be assured.

Finally, commitment to quality professional personnel must be evidenced in selection procedures based on merit and decisions about continued service based on quality of professional performance. Personal and political bias must be eliminated from the appointment and reappointment procedures. This is one of the reasons why the quality and continuity of official leadership is so important. Teachers also must be provided supervisory, program development, and evaluation services that will improve motivation and raise standards of performance.

Educational Evaluation and Research

A third necessary condition for adequacy includes effective program evaluation and expanded educational research. Program evaluation is necessary so that schools may know the actual extent to which the intended outcomes of schooling are being achieved. Educational research is needed to give evaluation and other efforts in schooling a base of empirical knowledge.

The design for each school program must include procedures to determine the extent to which the program's objectives are being achieved. Although the importance of program evaluation is frequently discussed, relatively few school systems allocate resources specifically for this purpose. The general practice among school systems of announcing standardized test results may be lulling the public into the belief that sound evaluation is occurring in all programs and that results are being used for program improvement; however, standardized testing is only one aspect of program evaluation and has little or no usefulness for some programs and objectives.

The techniques and procedures of program evaluation must be improved. The current basic skills, minimal competency, and general achievement tests are not sufficient means for determining the adequacy of schooling; and most of the existing tests need improvements in their design. There are differences of opinion about effective and desirable procedures for pupil, program, and school evaluation. Some educators believe that overemphasis on evaluation, particularly so-called objective evaluation, is distorting some of the purposes of schooling. Others believe that achievement comparisons among schools are damaging unless the comparisons take into consideration the differences in scholastic aptitude, cultural background, and prior academic achievement of the pupil populations of the schools. Despite the limitations of existing techniques and procedures, sound program evaluation leads schools to look carefully at their efforts and to use evaluation results as feedback for improvement of programs. Efforts to improve evaluation concepts and techniques must be continued and must be supported by research and scholarly study.

Scholars are slowly accumulating a base of knowledge about teaching, learning, program development, and school management; but because of years of inattention and neglect, much remains to be accomplished. Present efforts should be expanded, future scholars should be identified and prepared, productive cooperation should be established between scholars and practicing educators, and the results of research studies should be effectively disseminated. The nation is doing very little to support educational research by the university scholars and others who are the primary source of the needed knowledge base. Particularly lacking is support for the difficult research problems that are potentially controversial and the long-range basic research which is absolutely essential for progress.

More attention and support for program evaluation and educational research are necessary if we are to have affordable adequate schooling in America. Probably no single source has made the need for research better known than the federal government through the activities of the National Institute of Education. Continuation of that federal interest is vital to improved evaluation and an expanded knowledge base for schooling. Support also is required from other sources, public and private, particularly sources able to sponsor both long-range and controversial research projects and field studies.

Supportive Cultural Environment

If schooling is to be adequate, a healthy, vigorous, and supportive cultural environment is necessary. The education of children and youth is not solely the responsibility of the schools. The relationship between schools and their environment must be mutually supportive and must extend from home-school and school-community cooperation at the local level to joint responsibility for achievement of basic national goals. Unfortunately, citizens frequently look to schools for initiatives that must come from elsewhere in society.

Many of the learning experiences that mold the personalities and lives of young people come from institutions other than schools, informal social contacts, and the general culture of society. For example, other institutions and agencies must provide for the health and nurture of youth, the resources for pursuit of their career plans, and gainful employment when they reach adulthood. The interests and cultural choices of children and youth are powerfully influenced by mass advertising, mass entertainment, and the popular press. If the standards of those mass institutions are superficial and materialistic, the schools will find it more difficult to develop or inculcate higher standards. To the extent that the standards of mass institutions are attentive to quality in content and presentation, the quality of schooling will be advanced.

Care must be exercised in the involvement of schools in the resolution of social problems. Many of the so-called problems of schooling are in reality general cultural problems over which schools have little authority and frequently only indirect influence. If, for example, rates of youthful suicides, venereal disease, unemployment, and drug involvement are to be reduced, schools should be part of the joint effort to do so but must not be expected to assume the primary or even a major responsibility for resolution of the problems.

The point is that if the public wants adequate schooling, one necessary condition is a national environment containing social institutions serving national goals for children and youth that are complementary to and supportive of the purposes of schooling. Cultural practices outside the schools must be supportive of the purposes and objectives of schooling, and coordination of efforts among institutions is a necessary condition for the success of each.

NATIONAL LEADERSHIP FOR ADEQUATE SCHOOLING

If American schooling is to be adequate, a strong national sense of direction is necessary. That necessity results from the complexity and interrelated nature of life throughout the United States. The need for national direction, however, does not mean local control is to be abandoned; hence the challenge is how to combine the two, the needed national sense of direction and the need for effective local control.

State and local officials face a difficult and growing dilemma. Parents demand educational programs and achievement results in the local schools that are competitive on a national basis. Yet the decisions of those officials must be politically responsive to voters and taxpayers whose major attention at election time is usually focused on local issues and personalities. Both officials and citizens need direction and support for schooling that is broader in scope than solely local concerns.

Although official control of elementary and secondary schooling rests with state and local districts--being administered through a decentralized structure of 50 different state governments, 15,000 public school districts, 87,000 public schools, and 20,000 private schools--the actual source of most policies and practices is national. One reason for this is the fact that professional thought in schooling comes from an effective network of cooperative endeavors, associations, scholarly exchanges, and other relationships and communications that are now largely national in focus. A second reason is that public expectations for schooling are strongly influenced by developments such as the high degree of geographical mobility of the American people; the nationwide scope of the interests and operations of major firms in business, industry, and finance; the national focus of the entertainment and news media; the manpower requirements for national defense; and the repeated calls for full utilization of the nation's human resources. If adequacy is needed, surely it is needed in all parts of the nation however it may be defined and conceived. This will require a nationally accepted basis for the meaning of adequacy and of the requirements for its implementation and achievement.

To recognize the need for national leadership, however, is not to call for standardization and uniformity in schooling. There are desirable strengths in the decentralization of school governance and decision-making. Decentralization avoids the deadening effects of centralized official control and bureaucracy, encourages the use of new ideas and practices, and permits adaptations to local needs, conditions, and mores. It makes possible the diversity of practice that, when soundly accomplished within a common framework of purposefulness, is one of the characteristic strengths of the American system of schooling.

The problem is how to maintain the strengths of decentralization while at the same time providing the national perspective for schooling that is needed and expected. This can best be accomplished by the development and continued renewal of a national framework of purposes, program structure, and resource requirements for elementary and secondary schooling. The framework should give direction to state and local efforts and should offer carefully examined thinking about current needs, conditions, and issues in schooling. Such a national framework must be viewed as policy direction and guidance for state and local officials and for citizens and educators generally, but the framework must never become an official national mandate. The leadership needed, therefore, should not come exclusively, perhaps not even primarily, from government sources; neither should it come from a single source. A wide range of thinking is needed, but there also is need for a means that will focus this thinking and will get the attention of school officials and the public. Some of the groups that might fulfill the need for national leadership are discussed below.

National Policies Commission for Schooling

As one means of providing a national perspective, a National Policies Commission for Schooling should be established. The commission should be composed of distinguished citizens whose qualifications and backgrounds will command the recognition and respect of both the public and school officials. It should prepare and disseminate fundamental policy statements on the schooling needed in the United States and should aim at removing some of the confusion in public debate about the efforts of the schools. In addition, the commission should prepare and issue statements on major current problems in schooling. The policy declarations of the commission should reflect the best thinking of the members, but they should be based on the studies of its staff and other sources of educational thought in American society.

The commission should be a private nonprofit agency. Establishing and assuring continued support for the organization will be difficult but not impossible. The initiative for creating the body might come from several national groups, and support might come from a variety of sources. A very appropriate group to establish the commission would be a consortium of the major national associations that represent educators and school officials. Whatever the sponsorship, it must be absolutely clear that the commission is a completely independent group and that its views are not controlled by any sponsor or donor nor designed to advance their particular interests.

The aim must be to have the commission's statements thoroughly considered by parents, educators, school officials, and others interested in schooling, but the views of the commission should not be the only source of direction and recommendations for schooling. Reactions to the systematic and independent thinking of the commission, however, should assist state and local decisionmakers in clarifying their thinking and conclusions.

In establishing the commission, a careful review should be made of the work and operations of the Educational Policies Commission that was established in 1935 by the National Education Association and the American Association of School Administrators and that was influential on the national scene for several decades.

The Federal Government

In recent decades the national source with the greatest influence on schooling has been the federal government. That federal influence, which has been much greater proportionally than its contributions to school funding, has come primarily in two ways: (1) the educational policies and practices mandated in categorical grant programs, and (2) the legislative and judicial application of civil rights concepts to internal school practices. What has not been forthcoming from federal efforts is any sort of comprehensive national framework for schooling, and one would think that it would be inappropriate for federal officials to attempt to provide that type of national leadership.

The activities of the federal government in schooling and higher education have become a major political issue, and significant changes in the federal role are now being considered. It is not possible as this is written to assess the effects of the changes, since their enactment is still incomplete. Apparently the federal role is to be reduced; however, steps are being taken to increase support for private schooling by tax credits and other means. It must be recognized that the current efforts to reduce federal expenditures for schooling are based as much on budgetary and fiscal considerations as on policy conclusions. No political party that expects to provide continuing nationwide leadership can ignore the importance of education in the life of the nation, and one can almost be assured that this will not happen, especially when reasonable economic stability is restored.

Federal officials are in positions well placed to recognize national needs and developments significant for schooling, and they have and should use opportunities to secure action on those needs and developments. The Presidency and the major national political parties, because of their unmatched access to communications media, should be forceful advocates of adequacy in schooling. In a limited number of instances, the federal government may want to provide temporary financial support to stimulate action in the schools.

The most significant contribution the federal authorities can make, however, is the stimulation and support of the work of other national organizations concerned with the improvement of schooling. Federal efforts in the collection and dissemination of data about schooling should be continued, and federal efforts to encourage and strengthen research in education should be expanded. With regard to identified problems in schooling, the federal government can become a supporter, by financial and other means, of projects of national groups that are addressed to the resolution or study of major national problems in schooling and that are designed to provide guidance and direction to state and local officials.

There is one major national problem that only the federal government itself has the fiscal potential and the possible jurisdiction to address: the disparities in support for schooling among the various states. That those disparities create serious problems is indicated by the experiences of the armed services in examining and training youth from all parts of the nation. Given the importance of schooling to the social, political, economic, and military welfare of the nation, inadequate schooling in any part of the nation can no longer be tolerated.

Education Commission of the States

The Education Commission of the States (ECS) is a potentially significant source of national leadership for schooling. Created as an alternative to the federalization of education, the organization's strength lies in its direct access to the governors, prominent legislators, and well-known educators of the states. Its weakness lies in the lack of resources for major, independent ventures in nationwide policy leadership (Graham, 1980).

Although ECS is a relatively new organization on the national scene and needs to be better known to educators and the public, the establishment of an effective, cooperative relationship among state officials for the improvement of education (the basic goal of the organization) could be a powerful source of thinking and influence. If this potential is to become a major source of direction for adequate schooling, ECS may have to delimit its efforts and concentrate its attention. The challenge is whether, in view of the political diversity of its membership, the organization can arrive at a firm, consistent position on national policies for schooling and can make its position well known to the American public. Because of its consortium nature, perhaps ECS's best hope for providing effective nationwide leadership is the establishment of an independent group to propose policy positions and courses of action for the consideration of state and local governments. If the National Policies Commission for Schooling is not initiated as earlier proposed, ECS should consider its sponsorship.

National Organizations of Educators

A major source of thinking about schooling in America should be the various organizations representing educators, parents, and school officials and those dedicated to professional fields of study and service in schooling. In the present period of public uncertainty and confusion about schooling, it would seem imperative for them to work together to create a sense of direction for the schools. The suggested joint effort in establishing the proposed National Policies Commission for Schooling offers that opportunity. In this as well as other cooperative and independent efforts that are not self-serving advocacy, these organizations can provide significant national leadership for adequate schooling.

Other Sources of National Leadership

There are many other sources of potential leadership. One is the national network of scholars located primarily in the nation's universities, which functions by shared information in professional journals, monographs, textbooks, organizational reports, etc. If given support, this national network is a useful leadership resource. Another is the national and regional accrediting groups in schooling. School groups are neither the only nor the most significant sources of potential leadership. National organizations representing civic groups, business, industry, labor, and other non-school interests have a vital stake in the quality of schooling; and having done so in the past, they can again speak with meaning and influence about the purposes, programs, and conditions for adequate schooling.

THE COST AND FINANCING OF ADEQUATE SCHOOLS

Sufficient funding is an obviously necessary condition for adequate schooling. The study of what constitutes adequacy would therefore be incomplete without consideration of the cost and the financing of schools. If increased expenditures are necessary to make schooling adequate, consideration also must be given to how those increases are to be funded.

The Cost of Schooling

In 1981-82 education "...will be the primary activity of more than 61 million Americans. Thus, in a nation with a population of more than 229 million, about 27 of 100 persons will be direct participants in the educational process" (USDOE, September 6, 1981). Elementary and secondary schools will enroll 45.4 million pupils and will employ about 2.4 million teachers. Teachers and pupils are divided between public and private schools in the same proportion: 89 percent public, 11 percent private. During this year 127 billion dollars will be expended for schooling, and an estimated three million young people will graduate at the end of the year.

These data indicate the magnitude of schooling in the United States. The average cost per pupil has now reached $2,200 per year. Will that amount provide adequate schooling? It is impossible, with the information now available, to say that it will or that it will not.

Those who seek quick and simple answers to questions about the cost of adequate schooling are almost certain to be disappointed. There first must be agreement on purposes, programs, and objectives, so that a basis is available for determining adequacy. Once that is accomplished, educational outcomes must be meaningfully related to expenditures and to the effects of other critical components in the necessary conditions of schooling. Simplistic, poorly examined

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conclusions about those relationships will be useless. They reflect a misunderstanding of the complexity of the cost analysis and education research that are required. Program evaluation and cost analysis are necessary to establish the expenditure levels required for adequacy, and only careful research can establish conclusively the means and conditions necessary for the attainment of the desired level of results. Further, although data provided by cost analysis and research are essential, experience indicates that they will not be the sole bases for decisions on public policies.

Policy-making is a political process. In all decisions in public policy-making, personal judgment based on an intuitive sense of institutional purposes and prospects, professional knowledge about schooling, and practical experience in the operation of schools must be considered. Inevitably they will be. That is why quality of leadership and expanded research efforts are of such critical importance. Recognition that judgment and experience are involved does not mean that decisions are to be based on personal whim and bias, for the process of making decisions must include careful consideration of the results of program evaluation, educational research, field studies, and program cost analysis. Unfortunately, the capacity to provide those services is not available in most school systems.

Another difficulty encountered in determining the cost of adequacy is that financial data reported on a national or state basis reveal very little about the cost and quality of schooling at the local level. In recent years fiscal studies have considered several aspects of the variances in expenditure among the states and among districts within states (Brown et al., 1971, and Rossmiller, 1971). That research should be carried forward and the relationships between expenditures and the quality of schooling should be determined. Particular attention should be given to the relationships at the local as well as at state and national levels. The difficulties in conducting the needed research will be formidable, and the effort will require substantial long-term support.

The Financing of Schools

The program evaluation data available today generally do not support the public doubts about schooling reported by popular opinion polls and other mass media. Careful reviews of the scholastic achievement of young people tend to show that, despite notable shortcomings, American schools are more effective than is generally realized (ECS, NAEP reports; NCES, 1980, pp. 51-55; NCES, 1981, pp. 56-57; Purves and Levine, 1975). Whether this level of effectiveness can be sustained in the future, much less improved, is questionable in light of the prospects for school funding.

The Education Commission of the States reports that at least two-thirds of the state school systems face a critical shortage of funds (ECS, States in a Squeeze, 1981), and the rising rates of private school tuition indicate that the problem is not limited to public institutions. Among the factors cited as reasons for the current financial problems are these: inflation, decline in the productivity of sales and income taxes, arbitrary constraints on the taxing authority of state and local governments (in some cases, imposed directly by the people), cuts in federal funding, and the necessity of increasing personnel compensation to relieve the pressure of rising living costs. The general outlook among school officials is that in the prevailing economic and political climate the possibility of increased funding is, to put it mildly, not encouraging.

The problem of sufficient funding is not new; it has been chronic for several decades, though for different reasons than currently. In the process of meeting the rising cost of schooling, the states are becoming the major partners in the financing of schools and in the control of school policies and practices. If the nation is to have adequate schooling, the state governments are likely to have a major role in its achievement. Litigation challenging the equalization of financial support among districts within a state usually results in an increase in the state's role in funding and policy determination.

Changes are also occurring in the roles of local districts and the federal government. Public resistance to taxation, especially the property tax, which is the major source of local funds, is leading to sharp reductions in many states in the proportion of school funding provided at the local level. At the same time, a comprehensive review of the federal role is under way. If federal school funding is reduced and possibly eliminated, or if it is placed totally on a block grant basis, federal influence will significantly decline. These developments, locally and nationally, may be leading to full state control of schooling for American children and youth.

Private schools, which also face problems of sufficient fiscal support, will be affected by changes now in process. These schools, which are largely financed by philanthropic contributions and tuition, benefit from income tax deductions for contributions and, if they are nonprofit, from tax-exempt status. Many also receive federal funds under the categorical grants programs and, in some states, local or state support for transportation, textbooks, and similar services under the so-called "pupil benefit theory." If the additional public support now being advocated for private schooling in the form of direct and indirect funding (voucher plans, tuition tax credits, etc.) is provided, it remains to be seen whether these schools will be subjected to increased governmental regulation.

Increased state financial support and judicial challenges to the equalization of funding systems are leading to the realization that the traditional minimum foundation program, the basis for school aid in most states, is no longer a satisfactory means for school finance. Given the inadequate opportunity for schooling in the 1930s, adoption of foundation programs by state legislatures was, at that time, a forward-looking action. In the years since, however, major and continuing changes in the finance systems, usually in patchwork fashion, were made for legislative purposes such as increased compensation and benefits to school personnel, property tax relief, interdistrict equalization, elimination of school fees, and support of mandated educational programs. Such changes have rendered the concept of minimum program meaningless, and as states attempt to rationalize the cumulative results of the changes, new designs for the distribution of state support will be developed. As that occurs, a well developed understanding of adequacy in schooling is needed in order to give direction to the new funding patterns.

Making the Case for Sufficient Funding

It is now evident that the public's concern about the quality of schooling no longer can be met by emotional appeals for more money. Indeed, a strong case often must be made even for continuation of existing appropriations and tax levies. If the case for sufficient funding is to be made in a politically effective and professionally sound manner, efforts in at least two directions must be forthcoming. First, problems and developments in school finance must be thoroughly studied and understood. And second, the cost of schooling must be carefully examined. A review of several current developments and needs will indicate the kind of efforts that must be made.

The most impressive, though not necessarily the most important, current development in school finance is the rapid reorientation in federal educational policies and funding provisions. The means used and the results of those changes must be carefully studied in terms of their stated purposes: reductions in federal expenditures, transfer of federal control to state and local governments, and provision to parents of an alternative choice to public schooling. Attention also should be given to the effects of a reduced federal role on national leadership for adequate schooling.

Probably more important, at least in terms of immediate effect on the total funding of schools, are the changes in state systems, especially the level of funding and revisions in the procedures for distributing state aid. Efforts to rationalize state systems and to implement court orders in equalization cases will require comprehensive changes and will produce new concepts and practices. Those should be subjected to searching analyses, since many of the changes probably will be adopted in other states across the nation. Means for exercising essential state control without negative impact on local authority should be explored, with simulated systems used to demonstrate the impact of alternate means. There also should be continued careful study of the immediate and long-range results of arbitrary limits on taxing authority at both the state and local levels.

In the reforms of state finance systems, explicit attention should be given to program priorities, program cost differentials, district cost differentials, and similar factors implied in the meaning of adequacy. Means for incorporating program priorities in aid distribution systems should be sought. Provisions must be made for differences in costs among programs; and the need and appropriate means for recognizing geographical differences in the cost of schooling should be thoroughly examined.

At the same time that studies are being made of problems and developments in funding, renewed attention must be given to the cost of schooling. The willingness and ability of school leaders to address questions related to cost thoroughly and openly may be an essential condition for restoring public confidence in the schools.

Already the major expenditures in school budgets are for personnel services; yet improvement in the economic attractiveness of careers in education is a necessary condition for adequate schooling. Inadequate information is available on what will be needed to make careers in schooling economically competitive and the fiscal means by which this might be accomplished. Whether the single salary schedule for teachers (and other employees) is still feasible is a question that should be reviewed, particularly in relation to the teaching fields with a continuing, persistent shortage of well qualified applicants. New studies of staff utilization should be made to determine if cost can be reduced by more efficient staffing practices without harm to the quality of instruction. Other alternatives for reducing cost and diversion of funds should be explored, and schools should have the authorization to test pilot projects for those purposes.

Perhaps the most effective means for control of school costs is a change of attitude and perspective: Citizens and educators must become more sensitive to the economic dimension of schooling and the need for efficient use of resources. The economic cost of each plan, program, and proposal must be given direct attention, and alternative means for achieving objectives must be examined. Cost is a specific factor, though not the only one, to be considered. Every proposal for improving existing programs or for adding programs and services should be required to contain a financial impact statement, i.e., an analysis and full statement of cost, the funding sources, and the fiscal effects of the proposal if it is adopted. The concept of adequacy in schooling, in addition to its programmatic components, must be understood to include economic dimensions. Making cost and fiscal effects clear and manifest in all program plans is essential to making an effective case for sufficient funding and, therefore, for the attainment of adequacy in schooling.

SUMMARY OBSERVATIONS

In the 1980s Americans are seeking reassurance about the adequacy of the schooling offered to the nation's children and youth. Moreover, they are looking to the leaders of the nation--local, state, and national--to determine what adequacy is and to guide the schools in that direction. It is not surprising, however, that the nation's leaders are at present unable to offer the assurance that is sought. Before this can be done, a better understanding of adequacy is needed than that shown in much of the current debate about schooling.

In this paper, we have sought to meet the need for an improved understanding in three ways. First, we have examined the basic meaning and components of adequacy. Next, we have reviewed the necessary conditions for the attainment of adequacy. And third, we have suggested means for creating the leadership that will be necessary if all schools are to be made adequate--and kept that way. This is not an attempt to advance a specific plan for the reform of American schooling. Rather, it is an effort to explain the meaning of adequacy and to relate that meaning to the practical requirements for attaining adequacy in the schools.

Because adequacy must be defined in terms of purposes, it cannot be a static concept. Its meaning will change as public expectations and the conditions for schooling change; they have done so in the past and will do so in the future. Nevertheless, the basic structure of the meaning of adequacy can be established; and that basic structure is useful in assessing the present efforts of the schools as well as proposals for change. Thus conceived, adequacy is defined as the level and quality of results expected to be attained in the pursuit of the established purposes of schooling. Four basic components of the concept may be identified: (1) the official statement of purposes; (2) the educational programs selected to achieve those purposes; (3) the objectives for each program; and (4) the resources and conditions for implementing the approved programs and for attaining the stated objectives.

There can be no meaningful discussion of adequacy without agreement on purposes. The cost of adequate schooling can be determined only when the purposes, programs, objectives, and necessary conditions judged to constitute adequacy are specified. If American schools are to be given a firmer sense of direction, then activities and experiences in the schools must be firmly related to purposes and objectives; and the outcomes of schooling must show that anticipated results are in fact being achieved. If development of a literate citizenry is a fundamental purpose of schooling, then the priority of the basic skills program must be evident in the planning, instruction, and resource allocations of the schools. If understanding of the free enterprise system is essential for effective citizenship, then pupils must learn that understanding through the programs of the schools. If a society concerned only, or even primarily, with material values and possessions falls short of the promise of democracy, then students must experience the hopes and aspirations of mankind in their studies. In short, purposes provide the basic criteria for selecting programs; and objectives provide the norms for assessing pupil achievement. But before there can be assurance about the adequacy of schooling, there must be consensus on what is expected of the schools and there must be certainty that practices in the schools effectively reflect stated purposes and objectives.

If the purposes and program elements outlined in this paper were expanded to provide needed practical details and then were used to assess contemporary American schools, it is possible that the results would be as follows: Some schools would be judged adequate; others might be found to provide more than adequate results; and many would be found to be less than adequate. The problem is that this cannot be known with any reasonable certainty until a comprehensive basis for determining adequacy is accepted. What does appear today in almost all schools, especially those seeking to do a creditable job, is a sense of not knowing what the public and the critics expect of schooling. This uncertainty is another indication of the need for a common understanding of what the public wants and is willing to pay for in schooling.

Once the direction for schooling is clear, then attention must be given to the resources and conditions necessary for the achievement of adequacy. If the quality of schooling is to be known, major improvements must be made in the techniques and procedures for program evaluation; and evaluation must be understood in a much broader context than minimal competency and general achievement testing. To fail to do so, particularly in the present period of sometimes distorted emphasis on certain testing techniques, may result in a major setback for schooling. At the same time, a firm understanding of each pupil's progress in the basic skills must be available; to fail to provide that information is to fail in a significant way to determine the adequacy of schooling.

The need for expanded and improved educational research, another necessary condition for adequacy, is critical to almost every aspect of schooling. Because the network for research is almost entirely national in nature, the continued support of the federal government in stimulating research efforts may be crucial to the future of an adequate knowledge base in education. The need for research is not always apparent to parents and others primarily concerned with the immediate effects of schooling; hence officials in a position to see educational needs in a broader perspective must provide the initiative for this necessary condition. The same is true for needed studies on the cost and funding of schooling. Particularly needed in this area are studies of the relation between program expenditures and achievement results. To be significant, such research must go well beyond the correlation of school expenditures and results on standardized tests--conclusions much too broad in range are already being drawn from such data. Improvements in all these conditions will be for naught unless one other is met: Teaching and other careers in schooling must be made economically and professionally attractive to the most able young people of the nation.

In the decentralized system of schooling in the United States, the study of adequacy, if it is to make a practical difference, must be made on a local and school-by-school basis. Indeed, for specific usefulness, it must be made on a program-by-program and pupil-by-pupil basis. Still, if bewildering confusion about the meaning of adequacy is to be avoided and if, as well, national needs are to be served, schooling must have a common framework reflecting a national perspective for purposes and programs. Developing and securing support for this national framework, which must be accomplished through recognized excellence in thought and through persuasion rather than official mandates, may be the most difficult task in the attainment of adequacy.

Such a national framework must be a well articulated and understandable conception of the purposes of schooling that are thought to be essential to the nation's welfare, along with a statement of the programs, objectives, and supporting conditions that are needed to reach those purposes. The framework must be seen as a dynamic or changing conception and must be based on a continuing examination of the changing knowledge base for education and the changing issues and problems of significance confronting American society and its schools. The framework must be presented as a guide for state and local officials as well as other leaders at those levels.

Although a basic reorganization of federal activities in education may be needed, the federal government must continue to play a leadership role in American schooling, particularly an advocacy and stimulative role for a balanced perspective. Organizations such as the Education Commission of the States must articulate the nationwide significance of the experiences of the states in providing schooling. National organizations in the fields of education must make a contribution; and the contributions of the national network of scholars, the accrediting agencies, and similar groups must be sought. The organizations and institutions of the private sector, which have a vital stake in the adequacy of American schooling, also must exert initiative to provide direction for the schools. Still, there is need for a well recognized and impartial source to pull together all these strands of thought and advocacy, to examine them thoroughly and critically, and to make independent recommendations, from a national perspective, of what constitutes adequacy in schooling. Because of the dynamic nature of the conception needed, this organization must be a continuing one. For that purpose the creation of a National Policies Commission for Schooling is proposed. The mark of national leadership in the United States may be its ability to create and sustain such an agency and function.

To give the national framework operational meaning, it must be used by officials and other leaders at the state and local levels as they work directly with the public and make the binding decisions that set the official direction for the schools. The future of American schooling is directly dependent on the quality of this state and local leadership. At its best, it can prepare the public to understand what constitutes adequacy in schooling and can put before the people the programs and services that are needed, the cost of providing them, and the choices that must be made. In the end, however, given effective leadership, the choice of whether the nation is to have adequate schooling rests with the American electorate.

REFERENCES

Brown, L. L. et al. School finance reform in the seventies: Achievements and failures. Washington, D.C.: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health, Education, and Welfare, 1977.

Education Commission of the States. National Assessment of Educational Progress reports. Denver: Education Commission of the States, various dates.

Education Commission of the States. States in a squeeze: Major education challenges of the early 80s. Denver: Education Commission of the States. 1981.

Graham, R. The future of the Education Commission of the States. Compact, 1980, 14, 4-5.

Interview with Terrel H. Bell, Secretary of Education; How to improve our public schools. U.S. News and World Report, June 8, 1981, pp. 61-62.

National Center for Education Statistics. The condition of education, 1980 edition. Washington, D.C.: U.S. Government Printing Office, 1980.

National Center for Education Statistics. The condition of education, 1981 edition. Washington, D.C.: U.S. Government Printing Office, 1981.

Purves, A. C. & Levine, D. U. Educational policy and international assessment: Implications of the IEA surveys of achievement. Berkeley, California: McCutchan, 1975.

Rossmiller, R. A. Fiscal capacity and educational finance. In R. L. Johns, K. Alexander, & K. F. Jordan (Eds.), Planning to finance education. Report of the National Educational Finance Project (Vol. 3). Gainesville, Florida: National Educational Finance Project, 1971.

United States Department of Education. News Release. Washington, D.C.: September 6, 1981.

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EDUCATIONAL ADEQUACY: ITS DEFINITION AND PROSPECTS FOR FUNDING

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Are projections of past financial trends a reliable guide to the prospects for adequate financing of education?

In order to respond properly to this question, it is necessary to delineate what one perceives to have been past financial trends. I must remind the reader that my perceptions are based on having been a local school district administrator and not a state or federal official.

I believe four financial trends have been common to both state and federal governments. First, both levels of government tend to prefer and lean toward categorically funded programs rather than general aid to local school districts, hoping thus to further specific federal or state goals. An example of such federal financing was the National Defense Education Act (NDEA) which encouraged more pupils to prepare for and enter scientific occupations. When the act was passed, the national interest seemed to demand that we match or surpass Russian technological feats in space exploration, which of course had important military implications (hence the word "defense" in the title). The trend toward specifying the use of federal and state funds may also reflect a lack of trust in local officials to make proper educational decisions. Regardless of motivation, one past financial trend has been to favor categorical rather than general aid to local school districts.

A second trend has been to mandate and initiate programs with a promise to increase federal and/or state support. The word has been, "Don't worry; we will give the increased support needed." A prime example of this trend is the federal Education for All Handicapped Children Act of 1975 (P.L. 94-142) and companion state laws such as the Handicapped Children's Education Act in Colorado. Currently, these programs are extensive and expensive. I do not question their need. I do question the trend to renege on promises for increased federal and/or state funds to keep pace with increased costs. By law and/or court order the programs must be maintained. To do so often means neglect of other programs. By way of illustration, in the past five years (1976 to 1980 inclusive), the general operating budget in my district has increased by 85 percent, partly because of a 30 percent increase in enrollment. During this same period, costs of programs for the handicapped increased by 154 percent. But state/federal categorical aid did not increase proportionately. The difference was funded by taking more and more away from general education of the nonhandicapped. As current evidence that this trend is continuing, the Colorado legislature held fiscal year 1981-82 dollars for state-wide support for education of the handicapped to a constant $39 M, the 1980-81 level. Increases in staff salaries, combined with the necessity to maintain the program level required by law for the handicapped, put unfair pressure on local school districts and force questionable budget transfers.

A third past financial trend has been an attempt to make local districts accountable for the spending of federal and/or state funds through increasingly extensive rules and regulations. Each year the number of pages of federal and state laws, rules, and regulations has increased dramatically. The cost of accounting for these has increased as well.

Finally, I believe there has been a tendency at both federal and state levels to label certain funds "educational" when perhaps they are not, at least not in the traditional sense. Calling them educational may, however, generate broader support for certain programs that are primarily social in nature. I am referring to such matters as the responsibility of the school to report child abuse, to check on a child's immunization record, to make adults more aware of their responsibilities as parents, and to serve lunch -- occasionally breakfast -- to school children. At least some of the original motivation for the school lunch program was to somehow use food products bought by the federal government for farm price support programs. This effort may also be a worthy goal, but let us not call it money for "education." The above four past financial trends are shared to some degree by both federal and state governments.

A fifth trend, primarily at the state level, has been to put "real" caps on annual budget increases and to force local school boards to appeal to voters for additional funds beyond these limits. I fully support the need for balanced, nondeficit school budgets. I would argue, however, that "adequate financing" to produce "adequate education" cannot result from some arbitrary, "I don't care what the results are" attitude by state or federal legislatures. In Colorado the annual budget increase is a flat, across-the-board dollar figure, the same for all districts. It is usually set some years in advance, so that one "can plan ahead." It is not based on the real and fluctuating impact of inflation or other factors that are justifiable cost differences between districts. The trend to set "real" limits in annual budget increases, combined with "go to the voters for more if you can't live with it," is a current trend visible in numerous states. I would be less concerned about such a trend if it were applied to other agencies and services as well. Part of the problem is the persistent heavy reliance on the visible property tax to fund local schools. Voters tend to take out their anger about taxes in general at school budget election time. It is a direct opportunity to say no.

What do these past financial trends say about prospects for adequate financing of education? The factors that contribute to my forecast of inadequate funding for education in the forthcoming decade cause me to believe that past financial trends will continue basically unchanged. For education, unfortunately, it will be business as usual.

To summarize, projections of past financial trends appear to be a reliable guide to the prospects for the financing (not "adequate" financing) of education. These past financial trends include preference for categorical aid rather than general aid, mandating costly programs and not making good on promises for increased funding, attempting fiscal accountability through rules and regulations, and calling some expenditures "educational" that are really for some other purpose.

At the state level there has been a trend toward setting "real" (often unrealistic) limits on annual budget increases, with an appeal-to-the-voter provision attached.

It appears that these past financial trends will continue for some time to come. They will not, however, provide for the "adequate financing of education."

What are the implications for a federal role in my approach to achieving educational adequacy?

I have identified six implications for the federal role in achieving educational adequacy as follows:

1. The federal government has a role to play in financing adequate education. Others have referred to that role as a "partnership" or "presence."

   There are at least two reasons why the federal government must take this financial role. First, it is by far the largest collector of taxes. To expect an adequate educational funding system and adequate educational results without using some of these funds is neither practical nor possible. Second, the federal government has a legitimate interest in supporting adequate public education. It cannot fulfill its responsibilities and missions without a citizenry that is adequately educated. For example, minimum literacy is needed to maintain the overall economic and military strength that is at the foundation of our democratic way of life. Moreover, the federal mission requires personnel with certain specialized skills such as the ability to communicate in a second or third language. The federal government also needs a citizenry capable of understanding global issues related to population, energy, mineral distribution, cultural differences, and the like. Finally, it needs an enlightened and responsive citizenry capable of producing first-rate political leadership in an unstable and dangerous world.

2. The federal government should use a general aid formula (block grants) to help equalize educational opportunities among states. The distribution formula must take into account each state's ability to help itself and the degree of effort it has expended. For political harmony, it would probably be necessary for the federal government to give at least some assistance to each state, irrespective of its wealth.

3. The federal government should use some type of special aid formula (categorical grants) to help it achieve particular national goals related to education, such as high proficiency in foreign languages. The rationale behind such special aid should be so compelling, so attractive, that all fifty states would participate. Occasions might arise when mandatory participation in federal programs supported by such specialized aid would be necessary.

4. The combined total of federal general and specialized funding should not exceed the level provided by the states themselves. Otherwise, local interest and, more importantly, local control and responsibility will be undermined.

   There will always be some correlation between the extent of funding support and the degree of control exercised by the different levels of government. In recent years the federal branch, while supplying no more than eight percent of the total cost of public education, has sought to exercise unwarranted control. The current administration's efforts to reduce the level of federal control should be balanced by greater appropriations of education funds if we are to have adequate education in all states.

5. It is important that the federal government establish a minimum of rules and regulations as it gives funds to the states. There are several reasons for this. States, as part of the nation, do in fact help produce many of the tax dollars collected by the federal government. Minimum rules and regulations reinforce a feeling of trust between and among the parties. Mechanisms exist for dealing with those who prove they cannot be trusted.

6. It is imperative that federal funds be properly identified under some type of "truth in labeling" act. If federal funds, general or categorical, are called "education dollars," it is important that they contribute rather directly to an educational outcome. All too often, care, welfare, treatment, and social goals are labeled "education." Before we can identify the relationship between expenditures and educational outcomes, however, consensus must be achieved on what education is. I shall deal further with this issue in the closing section.

THE CHANGING DEFINITION OF EDUCATION

To be satisfactory, a treatment of the issues involved in educational adequacy must show how the definition of education has changed over time. It should present past, contemporary, and future-oriented definitions of education, because education has been re-defined in almost every generation.

To begin with, we should remind ourselves that the United States was the first nation in the history of mankind to experiment with the idea of mass education at public expense. Not too many generations ago, education in the western world was considered a privilege of the wealthy and certainly not a right of the many. Like the early definitions of enfranchisement and laws that specify who may vote in America, early definitions of education were restrictive. An adequate education initially meant elementary school only, and excluded any child with even a mild physical, mental, or emotional handicap. Its purpose was to teach the individual how to read, write, and cypher and to provide him or her with some of the basic knowledge necessary for citizenship.

As the nation made its transition from an agrarian to an industrial society -- and more recently to a highly technological post-industrial society -- the definition of education also changed. An adequate education in contemporary America means high school graduation at least, and includes almost all children and youth, even those with severe physical, mental, or emotional handicaps. Its purposes have broadened so greatly, and society has become so pluralistic, that consensus on educational purposes may no longer exist.

America can be rightfully proud of the history of its public education system. The historical trend has been to make education more inclusive, less exclusive.

I suggest that a time has again come to re-define what our society means by education and therefore what to expect of the schools. I believe the definition should be very broad — but not to the point where virtually anything can be expected of the schools in the name of education. As an example of limitless definition, I would cite positions taken by some proponents of P.L. 94-142 and some court decisions.

Some children and youth, in addition to needing an "adequate education," also need adequate care and treatment. But care and treatment are not synonymous with education. I readily admit that care/treatment and education are interrelated. But we should separate the two concepts in our definition. Having done this, we could then say that what is not contained in the definitions of care and treatment is "education" and the rightful primary responsibility of the public schools. However, I believe this approach would be less than satisfactory. Let me explain further.

Public school education should begin, I believe, with formal exposure of the pupil to the human symbol systems of the alphabet and numbers. It is only through an ability to comprehend and manipulate these wondrous symbols that one can benefit from education. Any person not capable of benefiting from such exposure is probably not ready for what I define as education.

The severely handicapped should be provided with care and treatment that will enable them to live as independently and productively as their handicaps permit. But providing for these needs when they are primary in the life of the child should not be the responsibility of the school. Schools send teachers into hospitals and residential treatment centers (as they should) to teach reading, writing, math, and other subjects taught in the schools. But children in these settings are patients first and pupils second. There is a separate staff for care and treatment. These services should not be offered in the name of education. Some children in today's school setting should be seen as pupils first, but also as patients in need of medical treatment given by medically trained, not educationally trained, personnel. If schools can send teachers to teach in medical and social service settings, why cannot medical and social services send their staffs into schools to give care and treatment?

An open and honest dialogue is needed on the philosophical considerations involved in the definitions of care/treatment and education. The answer is not simply to say that education has no limits, and therefore schools must provide care and treatment for all who need it. Historically, these needs have been met by social service and health agencies staffed by persons trained in colleges other than colleges of education; I believe they should remain so.

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FUNDING AN ADEQUATE EDUCATION FOR AMERICA'S YOUTH: A PLAN FOR MELDING POLITICAL AND MARKET DEFINITIONS OF EDUCATIONAL ADEQUACY

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Purpose of the Paper

It is difficult to define "adequate" with respect to education. The state of pedagogical art provides little by way of scientific "truth" to help us, and there is no uniform set of societal values by which to measure "adequacy". In the face of such indeterminacy, American society has conventionally relied upon two mechanisms or processes for arriving at a definition. One is the political process. It allows the disparate views of individuals to coalesce into a public policy that defines adequacy. No one but the median voter may be satisfied, but acceptance of the process gives legitimacy to the outcome. The second mechanism or process is the marketplace, which permits greater attention to preferences of individual clients. However, it also has a serious drawback: Catering to too many individual preferences tends to jeopardize a polity's social cohesion. Thus neither the political process nor the market mechanism suffices by itself to define educational adequacy in ways that satisfy both individual clients and the larger public. This paper proposes a means for melding the two processes so as to derive the advantages of each while minimizing their drawbacks for individuals and society as a whole.

Dependence on Political, Marketplace Definitions

Few nations in history have expected so much of education as has the United States. Schooling is held responsible for serving the entire society as well as individual citizens. Social cohesion, economic productivity, civic virtue, and national defense are among the many public policy goals established for our schools. Simultaneously, we expect them to produce individuals who are literate, moral, healthy, occupationally competent, and socially skilled. We want these many purposes to be met by an education system that is free of politics, yet responsive to clients; sensitive to national needs, yet subject to the desires of local citizens; controlled by lay persons, while staffed by professionals. These conditions prevail in a national climate of values stressing equality, excellence, and efficiency, however incompatible these may be. Making the process more complicated still, American education policy is the concomitant responsibility of all three levels of government: federal, state, and local.

Out of such complexity, how are we to deduce or define an "adequate" education? What knowledge is of most worth? What should every child study? How long should students attend school? What should be required of every student? The philosophers who attempt to answer such questions will continue to make pronouncements. However erudite their proposals, they generally are difficult to translate quickly into public policy.

Philosophies certainly have reshaped the world. Witness the historical influence of ideas and ideologies such as Christianity, capitalism, and Marxism. However, such ideas generally achieve their effects by establishing a climate of public or intellectual opinion that eventually permits acceptance of specific practical changes. The philosophies themselves seldom dictate specific policies, and they almost never have immediate consequences that are long lasting. If philosophies involve substantial precision, they more easily fall victim to the absence of a national consensus about values and are debated to exhaustion in the thousands of arenas where American education policy is made. If philosophic statements are to avoid clawing controversy, they must possess such a high degree of abstraction as to be almost useless practically: e.g., "Do good and avoid evil."

When there is no science or even a readily acceptable dogma capable of specifying public activity, what can be done? More precisely and practically, how can an "adequate education" be defined in the face of substantial indeterminacy? We are forced to depend upon the two basic mechanisms available in the United States for resolving such questions. Each can channel disparate and disaggregated decisions into a widely accepted pattern of action or public policy. One such mechanism utilizes the political process, as I have noted; the other relies upon the economics of the marketplace.

Defining an Adequate Education Politically

Philosophers have described the components of an adequate education, but practical translations have generally fallen to local and state political bodies and educational practitioners. Omission of any reference to education or schooling in the body of the federal Constitution, interpretations of the Tenth Amendment, and educational provisions of the constitutions of the 50 states act in concert to render state governments the primary legal actors in defining an adequate education. Four strategies have evolved in this political undertaking: specifying (1) "adequate" resources, (2) "adequate" processes, (3) "adequate" content, and (4) "adequate" outcomes.

Resources. The best example of the political process defining adequate in terms of resources is to be found in the so-called "foundation" programs established by most states. Such programs gained particular popularity in the 1920s through the efforts of George D. Strayer and Robert Haig. In their capacities as authors and policy consultants to state legislatures, Strayer and Haig disseminated the idea that state governments should ensure each public school student access to a minimally adequate education. The mechanism through which the state's will in this regard was to be translated was a mandated minimum per-pupil revenue level. This financial arrangement, known widely as a minimum foundation plan, was extensively adopted throughout the United States and characterizes major components of the school finance arrangements of the majority of states to this day. The state-mandated minimum foundation of spending was intended to ensure that each student was provided with the school services basic to society's needs.

The major components of the plan include a minimum per-pupil spending level and a computational property tax rate. Application of the latter to the property wealth of local school districts (measured as assessed valuation per pupil) determines the extent to which local school districts are eligible for state equalization aid. The effect of such computations is to provide state financial subsidies to those districts with low per-pupil property wealth.

Under the minimum foundation school finance strategy, the per-pupil spending level is determined by the legislature. "Adequate" is a function of the political interaction of education proponents with fiscal guardians and advocates for increased spending in other public sector endeavors. Spending level specifications defined in this matter have little about them that is scientifically defensible, but they do possess political legitimacy. Because the spending floor is the outcome of a political compromise, it frequently is the case that most parties involved are unhappy, some believing that the required spending is inadequate and some believing the opposite. Nevertheless, the outcome is accepted and the school systems of the state continue to operate.

Notwithstanding the public acceptability and practical merit of a political mechanism for defining an "adequate" level of education, the outcome has been judged legally unfair in several states. The minimum spending levels established in connection with foundation programs may satisfy legislative bodies that the state has protected itself against the risk of public ignorance, but the other major goal of schooling, individual enhancement, may have been shorted in the process, and the neglect may violate the federal Constitution.

State-mandated minimum foundation spending levels are frequently viewed as insufficient, or inadequate, by local school districts. What the state legislature is willing to spend from state sources is, thus, exceeded by the decisions of local officials. To be sure, there are state equalization provisions, but they only equalize school district spending abilities up to a point: the foundation spending level. After that per-pupil dollar amount, individual district differences in property wealth penetrate the equalization system and result in the ability of high-wealth districts to spend more per pupil at property tax rates lower than their less wealthy counterparts.

These spending and tax rate disparities have been tested under the equal protection clause of the U.S. Constitution and found to be acceptable. In a narrow (5 to 4) decision, rendered in 1973, the U.S. Supreme Court decided that the principle of local control of school districts was sufficiently important to offset the spending and taxing inequities that resulted from foundation plans. The decision, Rodriguez v. San Antonio, was upsetting to school finance reform advocates. However, they were to have their day in a different court -- in fact, in several state courts.

Beginning with Robison v. Cahill in 1973 and thereafter continuing in approximately 20 other states, law suits have resulted in mandates to reform state school finance arrangements so that property wealth is less a determinant of school district spending ability. Progress in achieving this reform is neither smooth nor easy to measure. In some instances, state judicial systems have been reluctant to overturn existing arrangements, and no reform has been legally mandated.

Even where courts have decided in favor of plaintiffs, progress toward more equitable financing may be slow. Serrano v. Priest is among the most famous of the equal protection suits. It was initially filed in the Los Angeles County Superior Court in 1968. The California Supreme Court issued its decision on the merits of the case in 1976. Plaintiffs have been disappointed with the speed of reform and are now planning another round of litigation. Anthony Serrano, student plaintiff in the initial legal action, long ago graduated from public school.

Aside from whether or not courts order reform, or the speed with which such change comes about, the simple measurement of the extent of the change also has provoked controversy. How should change be measured? Is it sufficient that the range of school district spending differences be reduced? Or is it equally important that the relationship between school district spending and local property wealth also be severed? An abundant and sophisticated literature has evolved regarding the manner in which "equality" can be and should be measured.

Aside from the complexities of judicial action and public finance measurement debates, the fact remains that the political process, broadly defined, constitutes a means for specifying adequacy. Moreover, the definition need be neither static nor insensitive to the preferences of a political minority. From time to time state legislative bodies have readjusted the foundation spending level; it is their practical interpretation of what is adequate, in response to traditional political pressures. On recent occasions political pressure has taken the form of judicial mandates on behalf of plaintiffs toward whom it was judged that conventional political processes were insensitive. Regardless of its many weaknesses, such a means for specifying what is adequate has exhibited considerable flexibility over time. Between 1940 and 1980 annual per-pupil school expenditures in the United States increased from $100 annually to more than $2,000. Even when discounted for inflation, this represents an increase of over 500 percent in purchasing power. This amount may not satisfy education advocates as being adequate, but it does display the ability of the political system to redefine the term.

Resource adequacy can take shapes other than dollar specifications. For example, in response to an equal protection argument, the Washington Supreme Court judged that state's school finance arrangements unconstitutional and ordered the legislature to undertake a reform. The Washington constitution requires the state to establish an "ample and uniform" system of schools. The legislative response was to design a "basic" state education system with local district components such as a 20 to 1 pupil/teacher ratio, one administrator for approximately each 12 teachers, and other specified ratios for non-credentialed employees. These resource translations of adequacy were derived from common practice and existing state averages; the legislature relied not at all upon scientific findings. Again, the legitimacy of these basic features was derived from the political process.

Processes. The political process is capable of defining what is adequate by means other than financial. For example, until the 1970s the overwhelming majority of U.S. local school districts did not serve severely handicapped students. Court cases in the mid-1970s increasingly specified that this population was deserving of equal protection, and in

1975 Congress responded with Public Law 94-142. This statute does not define "adequate" in terms of expected or minimum spending levels; but rather, it mandates a set of procedures to be pursued in determining appropriate services for handicapped students. In the course of the legislative process it became clear that the current state of pedagogical knowledge did not permit precise program specification for pupils and particularly did not support such specificity being embodied in statute. However, it was generally agreed that there are useful procedures that can be employed in determining what kind of education is adequate for handicapped students. The statute invoked the design of an Individualized Educational Program (IEP) for each handicapped student. These programs stress the "least restrictive educational environment" for each student, and parental participation in the prescription process is mandated. Appeal procedures for dissatisfied parents are also included. In order to maximize flexibility, no minimum spending level is specified nor is a minimum academic performance or achievement level required. However, by relying upon procedures that are considered reasonable, a school can produce a set of instructional services that will be adequate for each handicapped student.

Content. Politics can also define educational adequacy in terms of courses to be taken or content to be mastered. This can occur directly through statutes mandating that local school districts assure instruction in subjects such as reading, mathematics, written composition, physical education, American history, and the principles of the free enterprise system. Content can also be specified in a more indirect manner through college entrance standards. Requiring a minimum number of years of study or course credits in subjects such as mathematics, foreign language, science, history, and English comprises yet another political avenue for defining adequacy. When content requirements are imposed by private post-secondary institutions, they simply are admissions criteria. When they are established either by the legislature or an appointed or elected body such as a board of regents or state board of higher education, they are then expressions of the political system. However arrived at, such admission standards have substantial influence upon secondary school curricula and frequently come to define what is adequate, at least for the college-going stratum of students.

Outcomes. Adequacy is sometimes defined in terms of knowledge students should have by the time they complete a specified level of schooling. The major means for determining the acquisition of minimal levels of learning is through examination. Regents examinations in New York State are among the oldest mechanisms for this assessment but are by no means the only ones. Numerous other states have established mimimal competency levels, mastery of which is required for a secondary school diploma. This legislative practice gained particular momentum during the so-called "accountability movement" of the 1970s. During that decade 31 states adopted statewide testing programs and mandated miminum performance levels. The California legislature required only that local districts establish their own performance standards. Florida implemented statewide standards. Both plans permit performance adequacy to be determined by political processes.

The political system displays substantial flexibility in its definitions of adequate. Better yet, it gives evidence of adjusting definitions over time to meet altered political demands and societal conditions. Nevertheless, political definitions mean that someone or some groups are called upon to compromise or concede some important component of adequacy; majority rule, with all its guarantees for minority rights, nevertheless may result in a less than adequate standard for some. In those instances, another definitional mechanism is arguably more just. I shall examine it in the next section.

Adam Smith's "Invisible Hand" and Educational Adequacy

A dynamic free market also offers a means for determining what is adequate. Private provision of education characterized much of America's system of schooling prior to the last quarter of the 19th century. Tutoring for fees, apprenticeships, dame schools, church schools, and proprietary institutions existed in large supply. Even the 19th century movement by a number of states to compel school attendance did not by itself erode the majority practice of seeking private education. Rather, it was the extension of free public schooling, coupled with compulsory attendance laws, that eventually dampened the private market tradition in American education.

Currently, in the last quarter of the 20th century, an estimated 10 percent of the school-age population attends non-public educational institutions. These enterprises encompass an extraordinary range of conditions, ideologies, and reputations. Whether any of these thousands of non-public institutions is "adequate" is a matter for debate. What can be said with some confidence is that the clients are generally satisfied with their quality; otherwise they would have little reason for attending. Legally, nothing compels students to attend non-public schools; they always have the fall-back option of enrolling in public schools. The fact that many choose not to exercise this option suggests that on one or more important dimensions public schools are deemed by this population to be inadequate.

Proponents of non-public schools contend that the freedom to choose contains numerous advantages. Not only does it permit clients to select the educational services they judge to be of most benefit, but also the absence of a guaranteed market motivates non-public schools continually to try to satisfy clients. Furthermore, it is argued that the absence of a monopoly fosters greater economic efficiency on the part of private providers. The savings from such efficiencies can be passed on to clients in the form of expanded educational services, lower tuition, or both.

Advocates of greater use of the market mechanism in the provision of schooling are characterized by many motives. Some ideologically oppose government control of education; others genuinely believe that public schooling would be improved by the prospect of economic competition. In the 1960s a number of free market proposals were made, and a few were tested. Most of these were "pay for results" educational experiments in which the now defunct federal Office of Economic Opportunity

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funded projects whereby parents were paid for higher student grades, achieving students were rewarded, and private contractors were paid to conduct instruction in return for financial bonuses should pupil performance improve by the end of the contractual period. The majority of these undertakings terminated, at best, in mixed results, and several of them ended amid scandal. There were allegations that teachers or contractors were inducing higher test scores by unprofessional methods. Regardless of the outcomes, these experiments appear to have had few lasting consequences. They were aimed more at gaining greater efficiency from public schools than at defining or ensuring adequacy for clients.

Three major plans have been put forth with which to capture the benefits of the marketplace for education in a manner enabling individual clients to define educational adequacy. Each of these involves public financial support but private provision of school services. The three mechanisms differ primarily in their degree of government regulation.

Unregulated Vouchers. The concept of government providing households with a warrant redeemable for school services is held to be of long standing with notable historic supporters such as John Stuart Mill. However, its more contemporary advocate has been the Nobel laureate economist Milton Friedman, whose first widescale prescription in this field was contained in his 1958 book, Capitalism and Freedom. In order to maximize individual choice, minimize inappropriate participation of government, and encourage greater economic efficiency in the operation of schools, Friedman proposed that government provide families with vouchers redeemable for services at an approved school of their choosing. Friedman relies on the wisdom of individual consumers to serve the collective public's welfare. Consequently, he does not advocate regulations prohibiting schools from charging tuition in excess of the voucher amount or discriminating in the admission of students. Friedman does not contend that every education vendor would be scrupulously honest, but he does suggest that a competitive market would drive out nefarious operators.

Tuition tax credit plans, though financed through a mechanism that effectively short-circuits government as a burser, would have much the same effect as an unregulated voucher plan. Indeed, in his essay on education in Capitalism and Freedom, Friedman devotes space to the prospect that government simply compel schooling and thereafter rely upon households to finance it, thus bypassing the cumbersome machinery of government collection and redistribution of taxes.

Tuition tax credit plans permit households to take all or some portion of school tuition as a credit against personal income taxes owed the government. In that the family pays tuition directly to schools and government has little to say regarding the amount of tuition, and perhaps little other regulatory authority as well, tax credits are similar to an unregulated voucher plan.

Tuition tax credits have been proposed in Congress several times. Eventual passage is conceivable. Passage to date, however, has been impeded by opponent claims that such plans would violate the U.S. Constitution's First Amendment separating church and state, seriously endanger public schooling and social cohesion, and deplete the public treasury. The House of Representatives, though by a narrow margin, enacted a tuition tax credit proposal in 1979. The threat of a Presidential veto stifled Senate consideration at that time. The Reagan Administration has again proposed the idea, but the projected revenue drain in a time when the federal budget is otherwise badly unbalanced suggests that the bill will not now pass either.

Compensatory Vouchers. Friedman critics contend, among other things, that his unregulated voucher plan would place low-achieving students from low-income households at a competitive disadvantage in seeking adequate school service. In that the Friedman plan does not restrict tuition charges in excess of the government-specified voucher amount, schools catering to high-income clients would be free to charge amounts that place their institutions out of reach of economically less fortunate families. Under such conditions, low-income individuals might have to settle for an education that they themselves defined as less than adequate.

In order to overcome this potential pitfall while continuing to permit overall consumer choice of schooling, a group of Harvard University-related analysts devised a compensatory voucher strategy. Their efforts were also financed during the 1970s by the Office of Economic Opportunity. These proposals suggested a voucher the dollar value of which would be inversely proportioned to household income and student achievement. Many administrative details of such a plan were developed, and an active effort was made to encourage one or more states and local school districts to undertake experiments with it. Despite such efforts, voucher opponents and inertia proved too difficult to overcome, and the idea never received a full test.

Regulated Vouchers. Thoughtful voucher proposals have been put forward by those concerned that even compensatory vouchers are inadequate for protecting society's needs. The so-called "family choice" plans of John E. Coons and Stephen D. Sugarman involve substantial attendance regulation of voucher use. Under the Coons-Sugarman plan, schools empowered to redeem vouchers would have to accept several operationg conditions intended to ensure that public interests were protected. For example, voucher schools would have to admit all applicants. In effect, there could be no admission standards. In the event a school was oversubscribed for its advertised number of student places, it would have to resort to random admissions. Once admitted, students could not be removed from school without assurances of due process. These admissions and removal provisions are intended to ensure that schools not discriminate unfairly in assembling their student bodies. Regulation of this magnitude is believed, by purists such as Friedman, to eviscerate the utility of a voucher plan. Coons and Sugarman contend that such limitations are only fair, given that public funds are being used to support non-public institutions.

Regardless of the degree of regulation that is in order, voucher plans have not proven politically popular. Efforts by the Office of Economic Opportunity to gain one or more statewide experiments failed utterly. The best that could be arranged was a timid voucher demonstration project in the Alum Rock, California, school district. This plan did not permit non-public schools to participate. Parental choice was limited to the public schools of one district. Critics contend that findings from this project are relatively useless, in that numerous potential vendors were not permitted to participate; consequently, consumer choice was restricted well below what would be expected in an unfettered voucher plan. Repeated efforts by Coons and Sugarman to gain financial support and public endorsement of their plan in California have so far been unsuccessful. Thus, regardless of their merits, vouchers and tuition tax credits have not been instruments through which greater public choice regarding schooling could be exercised. The hopes of the free market theorists have been frustrated in the area of education.

A Synthesis

A mechanism is needed to define "adequate" while striking a new balance between public interests and private educational preferences. What is proposed here is to utilize political processes to make decisions about and financially support those activities that are judged to be preponderately for the common welfare and to rely upon individual choices and private funding to determine and support educational activities for which the public benefit is less obvious. For ambiguous educational subjects, the benefits of which are neither wholly public nor wholly private, a means can be devised for sharing both choices and costs. A few concrete examples are in order.

It is relatively easy to select examples in which an educational subject is crucial for the public's welfare. Few would deny that knowledge of reading, composition, arithmetic, and government is important to the well-being of society. At the opposite end of the spectrum, individual knowledge of dance is generally thought to be less critical to the functioning of the state. Thus by illustration one can see that society has an intense interest in the support of some education and little or no necessity of supporting other forms. As a general rule, those subjects judged important to overall civic functioning should be supported by the state. The costs of those services considered primarily of benefit to the individual should be borne privately. Admittedly, there are areas of ambiguity. In a society characterized by increasing technical complexity, knowledge of computers may have civic as well as individual benefits. In areas of contention, the political process should decide whether a subject is to be supported publicly or to remain a private good.

The Public's Interests. In order to ensure that education is sufficiently widespread to protect the common welfare, schooling should be compelled through what conventionally is known as the tenth grade or age 16. This schooling should concentrate upon those educational subjects agreed to be of necessity for participation in a democratic society.

At a minimum, such subjects would reasonably include reading, composition, arithmetic, history, and principles of government. Arguably, a few other topics should be included, e.g., science. In that there presently is no means for deciding about the content of a basic or core education, political processes should prevail on this dimension.

Whatever the outcome of the deliberations regarding the content of the core curriculum, the measure of student success should be "outcome oriented". Satisfactory performance should be measured not in terms of resources provided nor by means of the amount of student time or number of classes spent in efforts to acquire knowledge. Rather, if a topic is deemed of sufficient public import to be defined as basic, then government should ensure that all students reasonably capable of learning it demonstrate their knowledge.

The core curriculum should be available to every age-eligible student within a state on an equal basis. Financial support for the undertaking should be provided completely by the state, imposing no revenue burdens through local taxation. Funding available to a local school should be a function of the needs of its students and whatever, if any, cost differentials exist throughout the state. Students experiencing difficulties in learning justify added state revenues for their schools.

Private Interests. The politically defined compulsory core of education subjects is intended to satisfy state needs. In effect, such educational requirements constitute "adequate" from the standpoint of the common welfare. However, the compulsory core is not intended to define "adequate" for individual households. Three added mechanisms are directed at providing household choice on those dimensions deemed to be primarily of private benefit.

First, even though ten years of schooling is compulsory, families should be permitted to select their public school. (Non-public schools presumably would continue to exist under current constitutional protections. However, the logic of this proposal prohibits public subsidy of such schools for instructing in core subjects at the tenth grade or below.) District boundaries should lose much of their meaning for attendance purposes, though they might still have significance for administrative reasons. Parents could select any school for their children within a fifteen-mile radius. As an incentive to maintain schools sensitive to the preferences of local parents, school districts would be held responsible for providing transportation to students desiring schooling outside regular attendance zones. Beyond a fifteen-mile boundary, parents would be responsible for transportation costs. In that the state would supply complete costs of core schooling, there need be no added financial burden upon taxpayers in local jurisdictions to which outside parents choose to flow.

A second means of defining "adequate" for individual consumers would be through provision of "education coupons". Such coupons could be purchased by households from local school districts in whatever amounts desired. Costs of coupons would depend upon family income and number of children in the household.

It would be important that each household bear at least a minimal financial burden in this purchase. Such a private commitment is necessary not only to ensure that individuals do not make frivolous use of public funds but also because services for which coupons will be redeemable are arguably less necessary for the common good and more likely to convey private benefits. Nevertheless, in that the supplementary education services such coupons could purchase might have marginal public payoffs, some degree of subsidy is justifiable. An income-proportional fee scale might thus charge 90 cents on the dollar for higher-income households and only 10 cents on the dollar for low-income families. Excess costs of coupons, above private payments, would be fully funded by the state. The progressivity of the payment schedule would depend upon many facets. For example, if a state already possessed an income maintenance program, then low-income education supplements might be diminished or eliminated.

Coupons could be used to secure educational services for children of purchasers either at public schools or at any private or non-public institution approved by the state. Foreign language instruction, music, art, dance, swimming, vocational courses, remedial reading, medieval architecture are but illustrations of the many educational topics that individual households might prefer as supplements to the state-mandated core. Coupons should encourage diverse offerings by private entrepreneurs. However, the proposal is not intended to discourage public offerings. Should local public school authorities desire, they too could design supplemental programs eligible to redeem coupons.

Following completion of the compulsory schooling period, students would be eligible for up to an additional six years of schooling at state expense. This portable grant or entitlement could be used at any point in one's lifetime. Annual value of the entitlement would be related to the state's per-pupil costs for core educational services. For example, if in the year at question the state spent $2,500 per pupil on core costs, then this would suffice as the base value of that year's portable grant. Possibly this amount could be increased systematically by a multiplier encompassing the greater expense of secondary and post-secondary courses. Individuals could take advantage of their educational entitlement to enroll in up to fifteen hours a week in courses approved by the state.

Nothing in this proposal prohibits a student from continuing to enroll in school immediately upon completion of the mandated ten-year core curriculum. Many students might continue through some form of secondary schooling and immediately enter college with all or a portion of their way paid by the public. On the other hand, should a student believe that a period of paid employment, travel, or military service was in his or her best interest prior to beginning further studies, that too would be possible without jeopardizing subsequent opportunities for schooling.

Private as well as public institutions would be eligible to offer educational services payable by individual entitlements. Institutions would be free to charge whatever the market would bear for their secondary and post-secondary services. However, the amount of the entitlement would be fixed by the above-described formula. Not to do so would jeopardize state revenues. If a concern existed for equalizing access to higher-cost institutions, then consideration could be given to continuing the sliding scale coupon payment plan beyond age 16.

Radical departures from existing practice often require extraordinary forethought to anticipate the details of implementation. For example, how would the state "approve" courses or institutions for the redemption of coupons and entitlements? How can a black market in coupons be discouraged? What about incentives for school racial integration? The purpose in illustrating such problems is to acknowledge their reality. However, their existence should not be such an overwhelming burden as to discourage consideration of the ideas. If we accept the principle of a new balance between public interests and private preferences, then the details of implementation will follow.

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Political processes and private markets can logically be melded to provide a mechanism for defining "adequate" that is more likely to serve society while satisfying individuals than is our present system. Whether or not such a new balance can be struck politically is a different matter. At the moment, interest-group opposition and national financial exigencies have combined to defeat or render unlikely a market proposal such as a voucher plan or tuition tax credits. This is in the face of modest positive public opinion and congressional expressions of interest. Should events alter the present political balance such that advocates of private provision gain a larger hand, then public school proponents might find the above-described mixed system more attractive.

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FEDERAL GRANTS AND NATIONAL EDUCATIONAL POLICY

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Among the nations of the world, the United States is relatively unique in delegating the governance and provision of education to state and local governments. Instead of a centralized system of education, the U.S. schools are sponsored by the 50 states and some 15,000 local educational agencies. One of the major challenges for U. S. educational policy has been to meet national priorities in education under such a highly decentralized approach to the provision of schooling. During the last two decades, the response to this challenge has been to construct a system of federal grants in education to induce state and local production of educational services in the national interest. But, recent initiatives have begun to dismantle the federal grants structure in education on the basis that it is both inefficient and unduly intrusive in the affairs of state and local educational agencies.

This paper will explore various aspects of this controversy by reexamining the rationale for federal grants in education; the theoretical effects of different types of grants; the empirical estimates of fiscal impacts of different grant forms; and the implications of these findings for alternative grant policies in education. The next section will address the rationale for federal intergovernmental grants in education. This will be followed by a theoretical section that will suggest the impact of different grant forms and a summary of some of the empirical literature on effects of intergovernmental grants in education. The final section of the paper will attempt to apply these findings to an exploration of the consequences of alternative federal grants policies.

I. RATIONALE FOR FEDERAL GRANTS IN EDUCATION

Under a federalism the responsibilities of government are divided in such a way that the central government undertakes to provide those goods and services of a national nature while the regional or decentralized governments undertake those that impact primarily on the decentralized units of government (Elazar 1972; Reagan and Sanzone 1981) The U.S. Constitution enshrines this principle in the Tenth Amendment by stating that all powers not delegated to the central government nor forbidden to the states, "are reserved to the States respectively, or to the people." Because education was considered to be in this latter category, it was never a central concern of the federal government. The view was that the primary beneficiaries of education are the persons receiving their education, their families, and communities rather than the nation as a whole. By placing the responsibility for education at a sub-federal level, the principles of federalism were followed in enabling the funding and direction of a public good or service at a level closest to those who will pay and benefit from its provision.

At the beginning of the Republic, schooling was not required for most employment or for political participation.[1] Most of the labor force was self-employed in agriculture, commerce, and artisan production. Only those in the learned professions needed schooling. Political issues were rather straightforward, and citizens could be educated about both the issues and their political roles through community meetings. Indeed, the local nature of most political issues meant that one did not need great knowledge of abstract principles to understand them. Further, the nation was not yet knit together in a national system of commerce and standard production that would require citizens to speak a common language and understand a common system of production. Finally, literacy could be obtained through religious instruction, mechanic's institutes, and family instruction, with the Dame's Schools representing a popular method of inculcating basic reading, writing, and arithmetic skills. Such schools consisted typically of a mother instructing her own children and those of her neighbors around a kitchen table.

But as the Nation grew in both area and population and moved into an industrial phase, education became a more pertinent vehicle for obtaining employment, enabling political participation in an expanding and increasingly complex national arena, and for integrating the large waves of immigrants that came to America's shores in the nineteenth century. By the beginning of the twentieth century, the national implications of education became more obvious as migrants with little education from rural areas began to flow to urban ones without the requisite job skills to participate fully in an urban economy. And, by the middle of the twentieth century, the pressures began to mount for the federal government to take a major role in addressing national concerns through education.[2]

The National Interest in Education

There is no authoritative source on precisely what is the national interest in education. However, one can deduce the dimensions of that interest by considering six broad dimensions of national concern that are intimately tied to education.[3] These are: (1) expanding equality of opportunities for the disadvantaged, handicapped, and minorities; (2) economic growth and full employment; (3) minimizing spillover costs among states and regions; (4) cultural and scientific progress that will keep the nation at the forefront; (5) an effectively functioning democracy; and (6) defense of the Nation.

1. Expanding Equality of Opportunities

In a society that prides itself on providing opportunities for all, education represents a primary criterion for access to jobs and participation in major social and political institutions. But citizens from minority and low income backgrounds and with physical and mental handicaps will not have the same opportunities as other citizens, in part, because they lack many of the skills of their more advantaged peers, and, in part, because of discrimination. Without the skills and knowledge which are prerequisites for fuller social, political, and economic participation, there is only limited access of these groups to the more attractive occupations and income opportunities as well as other aspects of American life. Particularly, if the circumstances of one's birth are not to determine overwhelmingly one's status as an adult, there must be a powerful social intervention to improve the chances for those born into less fortunate conditions.

The national concern for equity is that of redressing "undeserved" inequalities such that:

> in order to treat all persons equally to provide genuine equality of opportunity, society must give more attention to those with fewer native assets and to those born into the less favorable social positions. The idea is to redress the bias of contingencies in the direction of equality (Rawls 1971: 100-101).

Clearly, education is considered to be the major social intervention for assuring better opportunities for these groups. As a national policy there is a commitment to expanding their social and economic prospects through providing them with compensatory educational resources and a more appropriate education than would be received in the absence of strong federal involvement. In particular, Title I of ESEA, bilingual education, and education for the handicapped are programs which address the need for greater national equity in access to overall social, economic, and political opportunities.

2. Economic Growth and Full Employment

Economic growth and full employment are important objectives for the nation because they contribute to a rising standard of living and participation in that growing economic activity and output by all who are able and wish to engage in productive employment. Both economic growth and full employment are based upon the fullest and most efficient use of national resources. This is a goal reflected explicitly in the Employment Act of 1946.

While education is hardly the driving force for meeting these national goals (Okun 1970), it is considered to be an important enabling ingredient. National economic efficiency requires having the appropriate types of trained labor in the necessary quantities to meet the requirements of economic growth. Full employment requires that all adults who wish to work have the types of skills for which there is a job demand.

Thus, educational policy for economic growth and full employment has stressed such goals as vocational education and manpower training, improving scientific and technical knowledge, minimum competencies in basic skills such as reading, and dropout prevention. Through categorical grant programs in vocational education and training and national media campaigns to dissuade dropping out and to promote national literacy campaigns, the federal government has made a conscious effort to contribute to economic growth and full employment. Presumably, compensatory educational programs also contribute to this goal. However, it is important to note that in a country like the U.S. there is little evidence to suggest that economic growth and full employment can be achieved primarily through educational policies (Levin 1977; Thurow 1975). At best, education can only be a supportive aspect of such an overall strategy.

3. Minimizing Spillover Costs

Educational activities in one part of the country may have important ramifications for other parts of the country. For example, if one state provides poor educational and work opportunities for its citizens, they may seek both education and employment in other states. In these cases, the flow of under-educated migrants may place a great burden on the states to which they migrate in the form of public assistance payments and criminal activity among those who cannot obtain productive employment because of inadequate education. Without adequate skills they will have difficulty in competing for jobs, and the resulting unemployment and despair may create various types of social costs for the citizens of the states to which they move.

From a national perspective, it is probably better to promote adequate educational opportunities in the initial place of residence to avoid this spillover in social costs from the place of dereliction to the one of opportunities. Certainly, it is unfair for citizens at the ultimate place of destination to pay the costs incurred by the negligence of another entity. Thus, the national government has a concern with minimizing these types of spillover costs by promoting educational programs that might circumvent the more serious inequalities among states. In a practical sense, such programs mainly take the form of providing remedial and compensatory resources for disadvantaged and minority students in all states through the various federal categorical programs to reduce the likelihood of undereducation in all parts of the country. Of course, there are many other examples of spillover costs, but these usually are thought to predominate among local school districts within states (Weisbrod 1964).

4. Cultural and Scientific Progress

The Nation has much to gain from maintaining levels of cultural and scientific progress that contribute to an increased standard of living, a leading position in world commerce, international prestige and participation, and an appropriate national defense (Bromley 1982; Bowen 1977). In particular, scientific and technical knowledge and applications are the basis for reducing costs of production and developing new capabilities and products through innovation and rising productivity. Cultural advance enables the Nation to enhance the lives of its citizens and share contributions in the arts and humanities with other nations as well as building a national identity and an international basis for greater understanding and harmony.

Through the promotion of developments in science and the arts and their educational extensions, this national concern is addressed. Especially important are the grants provided through such agencies as the National Science Foundation and the National Endowment for the Humanities as well as the subsidies for national educational radio and television. And, in addition, support under the programs of the National Defense Education Act of 1958 in foreign languages, science, and mathematics also addresses these concerns. Finally, broad programs supporting equity in education contribute to this goal by making it possible for latent talents to be discovered and developed.

5. Democracy

The promotion of democratic processes and participation depends heavily upon the acceptance of a common set of values and institutions. This is a particularly crucial goal for educating persons from immigrant backgrounds, but it applies to all members of society. Citizens are not born with democratic values and knowledge of how to participate in democratic institutions. This behavior is learned through schooling and political participation (Hess and Torney 1967).

One of the motivating forces for national promotion of school desegregation and bilingual programs is the desire to improve the participation of racial and linguistic minorities in the mainstream of social and political activities. This justification has been the stimulus for much of the litigation and legislation on these issues as well as for enactment of federal programs to reduce segregation and to improve English proficiencies of persons from non English-speaking backgrounds. But, even many of the other federal initiatives for improving access to educational opportunities among the disadvantaged, handicapped, and females are related to the intent of viewing schools as an institution that must promote full and democratic participation of all groups in the political and social life of the nation.

6. Defense of the Nation

The defense of the nation against potential enemies requires not only economic and technical strength, but also a skilled military force and one inculcated with patriotic values. Thus, there is a national concern that citizens have the proper skills and zeal to contribute to national defense. Again, this goal has been considered especially important for instilling a commitment among the foreign-born or their children to defend their newly-adopted country. However, it is also an important objective for reproducing in successive generations of Americans the concern for protecting American values and institutions and the armed defense of them, if necessary. Emblematic of the federal efforts in using education to attain these goals was the National Defense Education Act of 1958 with its emphasis on preparedness in foreign languages, science, and mathematics.

These six areas represent major foci of national concern with educational consequences. It is important to note that priorities may change over time according to both national needs and the relative efficiency of addressing those needs through education as opposed to other remedies. Also, national educational interventions are rarely limited to only one dimension of national concern. Rather, programs such as science education are thought to improve national productivity and employment, military preparedness, and scientific advance. Compensatory education is viewed as increasing opportunities for the disadvantaged, expanding employment, promoting democracy, and reducing spillover costs and so on.

Federal Grants and the National Interest

Grants represent only one of several policy tools for addressing the national interest in education.[4] The actions of the courts and federal agencies in interpreting federal laws represent a second lever; and national leadership in the form of media campaigns and public pronouncements on appropriate policies is the third. These particular approaches are hardly independent. For example, the attempt to reduce racial segregation has taken the form of litigation, legislation, public leadership, and grants-in-aid to subsidize the costs of desegregation. All three approaches may be used in concert to achieve national objectives.

But before looking at the role of federal grants, we must ask why state and local educational agencies do not fully address national concerns without outside intervention? The answer to this question can be best understood by referring to the nature of a federalism (Elazar 1972; Reagan and Sanzone 1981). Under such a form of government, the attempt is to decentralize decision-making authority in most spheres to move it as closely as possible to the populations that are affected by the decisions. That is, to a large degree decisions made about the education of children ought to reflect the interests of their parents and communities. Such accountability to the constituencies who must pay for and use such services is believed to provide greater governmental efficiency and responsiveness than when decisions are set out at a highly centralized level. Indeed, by not addressing education specifically in the federal Constitution, it was relegated tacitly to the sovereign states.

Each of the states took constitutional responsibility for education, by charging state legislatures with maintaining uniform systems of common schools. Typically, the states made elementary and secondary schooling compulsory and developed a set of laws regarding curriculum, personnel, and other facets of their operation, while delegating the actual operating authority within the framework of these laws to local educational agencies or school districts (Tyack 1974). As long as state-local and national priorities coincided decisions made at the lower levels also served the national interest. For example, the objectives of providing basic skills, preparation for the workplace, knowledge of political institutions and processes, and patriotic values clearly permeated elementary and secondary schools, to some extent, even in the absence of federal social interventions. However, other national priorities did not emerge on the local agenda, and it was to these that federal grants policy eventually turned.

This can be seen most clearly when we consider the issues of equity in education. Those groups with special educational needs that must be satisfied if they are to participate fully in economic and political life often represent numerical minorities at the state and local levels, and their political power is typically even smaller than their numbers. By virtue of their poverty or minority status, they simply lack the economic and political resources to get their educational needs recognized in the larger educational arena. That is, majoritarian politics will not work to address their special educational situation, even though adequate educational preparation is recognized as a requirement in the larger society for full participation. Historically, persons from low income and minority backgrounds were actually likely to have less funds spent on their education than were their more advantaged counterparts as a result of less political power and less schooling (Baron 1971; Owen 1972; Sexton 1964; Thornblad 1966; Wilkerson 1960). The lower educational investment and the fact that schools did not consider the special needs of these children also probably contributed to their higher dropout rates.

State and local priorities did not place a high value on fulfilling the national concern for equity and educational opportunity for all individuals and groups. Accordingly, a way had to be found by the federal government to change the behavior of state and local governments to address these needs. This was the formal rationale for federal categorical grants to provide compensatory education for children from low income backgrounds (Title I of ESEA 1965) and the introduction of funding for bilingual education in 1968 as well as the education of the handicapped and special assistance for desegregation in the Seventies. In each case, state and local educational agencies behaved in a manner to suggest that priorities in these areas were low relative to the costs of providing such services. Accordingly, the federal government initiated grants programs to induce state and local educational agencies to address federal priorities in addition to those that were major concerns at the lower levels.

The rationale for federal grants to education, then, is based upon the fact that the nation may place relatively different priorities on some educational issues than the state and local educational agencies. Unless state and local governments attach the same importance to expanding opportunities for those with special educational needs, economic growth and full employment, cultural and scientific progress, defense of the nation, an effective democracy, and minimizing spillover costs among states and regions, there will always be a disparity between optimal national policies and those of the decentralized units of government. Federal grants represent one method of getting state and local educational agencies to address federal concerns through the tailoring of specific grants to those governments to provide subsidies for services that fulfill the national priorities.

II. THEORETICAL EFFECTS OF GRANT FORMS

Thus far we have asserted that federal grants to state and local educational agencies represent one method of addressing national priorities while retaining a state and local educational system that is responsive to concerns at those levels. The purpose of this section is to provide a brief review of the theoretical effects of different types of grants, with special application to national concerns in education. It is important to point out that the theoretical literature on this topic is both considerable and largely consensual (Break 1979; Musgrave and Musgrave 1976: Chapter 29; Oates 1972; Wilde 1968 and 1971). Accordingly an attempt will be made to report generalizations from this literature rather than providing a detailed survey.

Assumptions About State-Local Fiscal Behavior

In order to understand the theoretical impacts of grants-in-aid from federal to state and local governments, one must set out certain assumptions regarding the analytical framework. These assumptions are derived from the theory of consumer behavior in economic analysis whereby consumption decisions of an individual or family are predicted on the basis of preferences, prices, and income. The study of governmental behavior views the governmental unit as a consumer with regard to each of these factors. Preferences refer to the priorities assigned by the governmental unit to different public goods and to the relative desirability of satisfying community needs through public versus private consumption. Prices refer to the cost of each good, public or private, that might be consumed. Prices of public goods might be derived from the cost of producing them or from purchasing them in private markets. In general, the overall price of public goods is a weighted composite of any particular subset of them that will be reflected in a tax rate or tax price for access to them. Finally, the income constraint of the governmental unit is that portion of the income of the community that is assigned to the public sector.

With respect to the fiscal behavior of the governmental unit in determining its pattern of public-goods consumption, two major decision levels must be addressed. A decision must be made as to how total community income will be allocated between public and private goods. Given the relative preferences for the two types of goods and the relative prices, the community allocates its overall income in such a way as to maximize its welfare so that the marginal or additional dollar invested in each type of good brings the same additional satisfaction to the community. This solution assumes the standard maximizing behavior of the consumer when faced with a set of prices, an income constraint and a utility function in which diminishing marginal utility and other standard properties pertain (Barro 1972).

Given an allocation between public and private goods, it is necessary to choose that set of public and private goods which, together, maximize welfare. Private goods are chosen according to the tastes and incomes of individual consumers or households, and public goods are chosen by a government that is representative of the community. Again, in both cases, prices of goods are taken into account in allocating public and private budgets so that the last dollar allocated to each good provides an equal increment of satisfaction to the community. In fact, it is now obvious that the two levels of decision making must be addressed simultaneously, since the division between public and private sector allocations cannot be divorced from the combination of public and private goods which are actually chosen. Because of the difficulty of both determining the optimal division of community income between public and private goods and the specific allocations to particular public and private goods, we will use the usual simplification. We will assume that a public budget for purchase of public goods such as education has been established, and we will review the determination of which public goods are provided (Barro 1972).

Given a budget constraint, a set of preferences, and a set of prices for public goods, each governmental unit chooses that combination of public goods that maximizes the satisfaction of its constituents. Thus, the amounts of and types of education and all other public goods are selected in this way. The theory of federal grants, then, assumes that each potential grant recipient is in "equilibrium", meaning that the governmental unit has allocated its own resources in an optimal fashion to maximize its own welfare (Gramlich and Galper 1973). But, from a national perspective, the allocation might not be optimal. Left to its own preferences and budget, a local government might not take all national concerns into account when providing education. For example, it might set a very low priority relative to its cost or price for providing special educational assistance to disadvantaged, handicapped, and bilingual children. It is these disparities between local decisions and national concerns that become the focus of federal policy.

Given the way in which the problem has been stated, the federal government can alter the behavior of local governments by changing their preferences, relative prices of goods, or income. Federal grants to state and local educational agencies attempt to do all of these. By focusing on specific educational goals and creating national legislation to achieve them, federal grant policy is designed to change the preferences and priorities of other governmental units. By paying the full cost or part of it for those educational endeavors considered to be in the federal purview, it reduces the cost to the state and local educational agencies for providing educational services that are pertinent to the national interest. To the degree that federal grants increase the income of state and local governments and educational agencies, a larger budget is available for the purpose of providing all public goods, including education and its specific components that are of interest to the federal government. Federal educational grants can be analyzed, then, according to how they operate on each of these factors to influence the behavior of state and local educational agencies in attending to specific national concerns.

Fiscal Responses to Federal Educational Grants

Educational grants-in-aid are not educational interventions in themselves, but a funding approach to modifying the behavior of state educational agencies (SEAs) and local educational agencies (LEAs). In general, the measure for ascertaining whether grant policies have been successful from a fiscal perspective is the degree to which a specified grant sum from the federal government alters spending at the state and local levels in the direction of national concerns (Gramlich and Galper 1973). It is important to focus on the important, but limited, nature of this role before analyzing the fiscal consequences of different grant forms. Although the provision of grants-in-aid from federal to SLEAs is often a necessary condition for accomplishing national educational goals, it is hardly a sufficient one. The sufficient condition is that the interventions that are supported by the grants are effective. Although this paper will be limited only to the issues of fiscal mechanisms and impacts for addressing national educational concerns, there is a vast literature which discusses the other aspects of effectiveness (Berman and McLaughlin 1975; McLaughlin 1975; National Institute of Education 1977; Kirst 1982; Kirst and Jung 1980). But a necessary condition for getting state and local educational agencies to contribute to the fulfillment of national educational objectives is to assure that they are devoting resources to these concerns. A sufficient condition is that the resources devoted to those goals are being deployed in an efficient manner.[5] Grant theories are devoted primarily to the first of these, the fiscal effects at state and local levels of federal grants-in-aid. The tacit assumption is that state and local governments will be efficient in achieving their goals wherever they deploy their funds. We will operate on that assumption and consider principally the fiscal impacts of federal grants to education.

When a federal grant is provided to state and local educational agencies (SLEAs), it is often assumed that the entire grant will be allocated to the matter of national concern for which it was intended. In fact, it is very difficult to make that assurance, since there are three major responses that can be made by SLEAs to such grants. First, the grant can be used for increasing the amount of the educational service for which it was intended beyond that which would normally be provided out of state and local resources. Second, the grant can be used to reduce state-local support for the intended educational service, reallocating that state-local funding to other educational needs and other public goods. In that case, the grant would substitute for funds that would have been spent on the intended educational service. Finally, the grant can be used to reduce state-local tax support for all public goods by enabling a reduction in state-local taxes to the degree that the federal grant supports expenditure domains that would have been paid for out of state-local resources in the absence of the grant.

In the first of these cases, the grant is used for its intended purpose. Indeed, under some cases it may even stimulate increased funding from state-local sources towards the area of national concern. However, in the second and third case, a portion of the grant is used to substitute for state-local support that would have been forthcoming for the intended educational service so that resources are shifted to non-aided goods or back to the private sector in the form of tax cuts. One should bear in mind that it is difficult to monitor such effects in any simple way. For example, what if SLEAs are presently spending $200 extra for each disadvantaged child in the absence of federal grants? A federal grant program is established that allocates $400 to SLEAs for each disadvantaged child. One possible response is for SLEAs to spend the entire $400 on each disadvantaged child, while withdrawing the $200 in existing support to allot to other public goods or to tax reductions. The SLEAs will appear to be spending the entire grant amount on the proper educational service (i.e. $400). But, to the degree that $200 would have been spent out of state-local sources anyway, the real increase is only $200 and the SLEAs would have used $200 to support other activities.[6]

Further, what if the SLEAs would have increased their own expenditures on the disadvantaged in the following year to $300 in the absence of the federal grant? In that event, only $100 of the federal grant could be considered as augmenting expenditures on the educational service of national concern, with some $300 being used to relieve other state-local priorities. In this case, it would not even be possible to observe what would have been spent in the absence of the federal grant, so it is far less obvious what the actual effect of the federal grant would be on increasing the expenditures of SLEAs on disadvantaged children. To a large degree, estimates of these effects can only be determined by rather sophisticated statistical models whose results will be reviewed in the next section.

Types of Federal Grants in Education

The specific types of federal grants that might be used to address national concerns in education include: (1) revenue sharing; (2) general aid to education; (3) categorical grants for particular educational services; (4) block grants for specific groups of programs; and (5) matching grants. Each of these will be reviewed in turn to compare their mechanics and theoretical impacts.

1. Revenue Sharing

Revenue sharing refers to the federal government returning a portion of federal revenues to state and local governments in order for the latter to use them as they see fit (Nathan et al. 1975). The notion behind revenue sharing is less a national concern with regard to the state-local provision of particular goods than it is the sharing of national tax sources with other governmental units. The presumption is that the federal government has pre-empted such major sources of revenue as the personal income tax and the corporation income tax. Even though the states can also tax in these areas, the major impost of the federal tax system tends to limit what states can do. Also, states must restrict themselves to relatively low rates to avoid losing taxpayers to other states that do not tax personal and corporate income or that tax them at lower rates. Thus, the view behind revenue sharing is that the highly productive and efficient federal tax system ought to return a share of its revenues to state and local governments to use as they see fit.

Accordingly, revenue sharing is not a system of grants to support particular public goods as much as it is an approach to augmenting state and local government revenues. In that sense, it can be used to increase any or all public goods as well as being used to reduce local tax effort through replacing expenditures that would have been funded from state-local revenues. The specific effects of revenue sharing on educational expenditures will depend on the relative preferences of the state-local governmental units for using additional revenues for education as opposed to other goods. Economists generally view the effects of revenue sharing on public expenditures as similar to that of any increase in community income on expenditures. As community income rises, some of it will be allocated to public goods, only a portion of this being used for education. If applied in a straightforward way, only about ten percent of revenue sharing receipts would be used for public goods, with the other ninety percent being used to reduce the state-local tax burden (Gramlich 1977)

But, economists have found that when revenues come to the governmental unit directly rather than simply augmenting the income base of the community, a far higher portion is actually spent on public goods -- perhaps half. This is known as the "flypaper effect" to reflect that such funds stick where they hit rather than shifting easily to the private sector. The flypaper effect is explained by the fact that the bureaucracies receiving the funds have enough autonomy and power to exercise much more control over the use of the funds than if the funds were just returned to the community in the form of private tax credits or other forms of income (Courant, Gramlich, and Rubenfeld 1979). It is believed that the flypaper effect works in all areas of federal grants to retain funds at the level of the agency that initially receives them.

What are the specific implications of revenue sharing for education? It should be borne in mind that revenue sharing addresses issues of national concern only to the degree that the more productive and efficient federal tax system is used to provide funds to state and local governments. The very nature of revenue sharing suggests that it is a blunt tool at best for addressing specific national priorities. That is, general revenue sharing will tend to have an "income" effect for state and local governments, increasing the amounts of all goods that will be obtained including education. Although some of the funds will be spent on education, the amount will be relatively small and will not be targeted toward any specific type of educational service. Rather, these decisions will be left to state and local political processes and preferences.

2. General Aid to Education

General aid to education refers to the provision of grants for use by SLEAs for educational purposes only. Although the federal government has not provided these types of grants, state governments have provided them to local education agencies (LEAs) for two purposes (Benson 1978: Chapter 10). Specifically, school districts with meager property tax resources have been provided with "equalization" grants to enable them to provide at least a minimum educational program in spite of their dearth of local tax resources. In general, states have set a foundation or minimum level for educational expenditures which has been guaranteed to any LEA that taxed itself at the mandatory tax rate, regardless of the level of local revenues actually raised. If an LEA was not able to raise the minimum or foundation level of funding out of its own resources, the state made up the difference with equalization aid that could be spent on any aspect of education. The notion behind such equalization aid was to make certain that even the poorest LEAs were able to provide a "foundation" educational program.

In addition, general aid was provided to all LEAs in the form of so-called population membership grants or ADA grants. The state provided a flat amount of grant assistance for each child attending the school district or in average daily attendance (ADA). These funds could also be used for general educational purposes, rather than for specific programs. In the last decade, the states have taken increasing responsibilities for providing aid to school districts because of the pressures of school finance litigation and of tax limitation movements that have restricted utilization of local property taxes. Starting with the well-known Serrano case in California, most of the states have experienced challenges to their heavy reliance on local property taxes to fund education. The main argument against this practice is that it violates the equal protection clause of the Fourteenth Amendment because educational expenditures on a child are a function of the wealth and income of his/her parents, neighbors, and community, rather than those of the state as a whole (Coons, Clune, and Sugarman 1970). As such, an LEA with a meager property tax base will have lower educational expenditures per student and a higher tax rate than LEAs with more substantial tax resources. Although state equalization aid has closed some of this gap, it has left large inequalities in favor of wealthier districts.

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The state courts have generally overturned this approach to financing education by asserting that differences in educational expenditures should not depend upon differences in the tax bases of LEAs. State legislatures have responded by increasing the guaranteed levels of support from the state treasury and reducing reliance on the local property tax. This movement has been accelerated by such tax limitation efforts as Proposition 13 in California, and Proposition 2-1/2 in Massachusetts (Catterall and Thresher 1979; Bradbury and Ladd 1982). Both of these measures have set limits on the use of the property tax and have forced the states to shoulder greater responsibility for local public services including education. Other states have anticipated such pressures by shifting some burdens from the local governments to the states. The result is that general state aid for education to LEAs has become more dominant over the past decades. Between 1959-60 and 1981-82 the portion of elementary/secondary revenues raised by LEAs declined from about 57 percent to about 43 percent, while the state portion rose from 39 to 49 percent and the federal share rose from about 4 to 8 percent (Adams 1982: 56; U.S. Department of Health, Education and Welfare 1979: 71). The result is that general state aid to LEAs has become more dominant over the past decade.

Economic theory views general aid to education as similar to an increase in public income for the LEA. Although some of the grant will augment educational expenditures, it is expected that some will be used in a way similar to any increase in community income -- that is, to purchase more of all goods, both public and private. Of course, the way that this is done is through a reduction in the local component of support for education as state aid supplants what would have been spent, with the "savings" being reallocated to other public goods and services and to local tax reductions. In theory, one would expect that the overall increase in educational expenditures from such general grants would approximate that of a similar increase in income for the community more generally. That is, for each dollar of increase in community income, the proportion going to the public sector and to education would be about the same as the allocation that would ultimately result from an additional dollar of general educational aid. However, we should be cognizant of the "flypaper" effect which would tend to retain a high proportion of educational aid for educational functions.

Categorical Grants

The most common form of federal grant to SIEAs is that of categorical grants for particular types of educational services that are considered to be in the national interest. The best-known among these are grants for bilingual education, special education, compensatory services for disadvantaged students, vocational education, and aid for federally impacted areas. But, in addition to these programs, there have been many mini-categorical programs for such areas as metric education, consumer education, law-related education, and so on. Essentially, these grants have been provided to SLEAs to promote particular educational services that would not otherwise be provided in adequate amounts to meet the national interest. That is, state-local priorities for these national concerns have not been high enough to produce enough of the service to meet national needs. Accordingly, the federal government has reduced the cost of such services by the amount of the grants, if the SLEAs will use the grants to provide these services.

Categorical grants are likely to increase support for the categorical educational services in three ways. First, by increasing the "income" of the SLEAs, more of all educational services, including the categorical ones, are likely to be produced. Second, the price of providing the categorical services is reduced to zero, at least for services produced under the grant. Finally, by calling attention to the special priorities reflected in the categorical programs, SLEAs may be persuaded to shift their own priorities in the direction of the categorical services.

In theory, such grants can only be used to provide the specific educational service, and regulations for some of the programs such as Title I of the Elementary and Secondary Education Act of 1965 require that such funds cannot be used to supplant funding from state and local sources that would have used to provide such services. However, accounting for what would have been spent on such services in the absence of federal grants is virtually impossible, and even accounting for whether federal grants are allocated only to the categorical service is also difficult. For one thing, it is often not possible or advisable to have separate instruction for children who are eligible for categorically-supported programs, since they are in classes with other children who are not eligible for such services. To pull children out of regular classes for categorical services -- for accountability purposes -- may be educationally harmful because it stigmatizes the child with the label of disadvantaged or handicapped, and because it is generally recognized that heterogeneity in student composition has positive educational benefits.

Accordingly, it is reasonable to expect that some portion of categorical grants will support the services for which they were intended; some will be used to support other educational services and to release educational resources for spending on other public goods; and some will be used to reduce the tax burden by replacing the state-local funding that would have been provided. The exact distribution will be difficult to ascertain because of the impossibility of separating out expenditures on the intended category of student or service from those for other students and services in an educational process in which such categories are not readily separable. However, it is to be expected that any reasonable accountability provisions such as annual reports subject to audits will tend to increase the amount of the grants that are used for their intended purposes. Indeed, one of the major features of categorical grants is that the specificity of concern can be embodied in regulations and guidelines that increase the probability that the funds will be used for the purposes for which they were designed (Barro 1978; Gurwitz and Darling-Hammond 1981).

Block Grants

In 1981 the Congress passed the Education Consolidation and Improvement Act (ECIA) which was designed to consolidate a large number of categorical grants into two major block grants, one to LEAs and one to SEAs. Under the new approach, the SLEAs would be given wide discretion in the allocation of the grants, and former regulations and guidelines on how the funds would be spent were largely rescinded. Two principal reasons were given for the conversion from separate categorical to block grants. First, it was asserted that there was considerable waste and duplication created by the separate administrative arrangements at federal, state, and local levels for implementing and operating the individual programs. By combining them into block grants, much of this duplication could be avoided, with significant cost savings. Second, it was asserted that it is better for SLEAs to use the grants to respond to their own priorities rather than federal ones.That is, by moving the decision authority on how the grants would be spent closer to the constituencies being served, it was argued that decisions would be more responsive to state and local needs. It should also be added that with the reduction in appropriations that accompanied the legislation, the burden would be placed on state and local governments to make specific expenditure reductions rather than the Administration and the Congress.

Although block grants have not been used at the federal level in education, they have been used since the late sixties in several other areas including health, criminal justice, community development, and manpower development, training, and employment (Reagan and Sanzone 1981: Chapter 5). In each of these cases, many separate but related programs were combined to give more flexibility at state and local levels to meet an overall goal (Break 1980: 168-179). This is an important assumption of the block grant approach, that the overall objective of the separate programs can be best achieved by state and local decisions on how to combine different component programs to maximize their effect. In that case, it is up to the state and local governments to decide how to use block grants to obtain an optimal mixture of program approaches to achieve a particular objective.

The consolidation of categorical grants into block grants is likely to work less well when there is little relation among the different categorical grant programs in the sense that they are targeted towards different populations or objectives. In those cases, the component categorical programs are not related to each other in addressing an overall goal such as maximizing employment or community development. They are simply substitutes in competing for the overall block grant allocations. Major federal categorical grants in education tend to be idiosyncratic such as assisting handicapped youngsters or providing bilingual instruction or providing compensatory resources for the educationally disadvantaged. Only in the case where these populations overlap would the programs be able to focus on a similar objective (Birman

1981). Indeed, it was the low priority of the state and local governments for particular educational services of national concern that prompted the enactment of categorical grants in the first place. Thus, the application of block grants to the consolidation of existing categorical grants in education may not be precisely analogous to block grant programs in other areas.

Although we do not have experience with educational block grants at this time, it is reasonable to predict that they will function like general aid to education to a greater extent than like the categorical grants that they are replacing unless there are strong regulations, monitoring, and enforcement. The Administration has indicated that it will not require the regulations and state or federal oversight that have characterized major categorical grants programs. Accordingly, the consolidation of existing categorical grants programs under block grants should probably be associated with a reduction in the amount of the grant that is allocated to the categories included in the consolidated grant and an increase in the amount of the grant that supplants educational funding from state-local sources.

Matching Grants

Matching grants refer to a mechanism whereby the federal government would provide a specified proportion of state-local educational expenditures in areas of national concern (e.g., areas addressed by existing categorical programs). Matching grants denote the proportion of SLEA expenditures that the federal government will pay for each category of service as well as the maximum amount, if applicable. Definitions of which services are eligible, the matching rates, and the appropriate accounting system for reporting expenditures are all that is required from a regulatory standpoint. For example, the federal government may provide a matching grant of 75 percent of all educational expenditures on compensatory education for disadvantaged children beyond the basic educational offerings provided to all children. Or, the matching level could be set at 40 percent or some other figure, depending upon the incentive that the federal government wishes to give local governmental units to address national priorities.

Matching grants are used to stimulate the provision of educational services that respond to national concerns by reducing the cost to SLEAs of providing such services. The standard response to a reduction in price of a particular service is that more of the service will be demanded. This is the basic notion behind the matching grant. If the matching rate is substantial enough, the appropriate SLEA response in terms of increased provision of the required educational service will be obtained. The exact matching rate must necessarily depend upon the so-called price elasticity of demand for the particular service or how responsive SLEAs are to reductions in price of particular educational offerings as well as how much additional provision of that service is in the national interest.

Matching grants have not been used extensively in education. The federal government has restricted its use of matching grants to a portion of its vocational education grants to the states. A few states -- e.g., Michigan, Colorado, and Massachusetts-- have also utilized matching grants in education. The main theoretical advantage of matching grants is their "efficiency" in tying the assistance to increased provision of the service that is of national concern. That is, the SLEA must show evidence of having spent its own resources on the selected educational program in order to receive federal funds. Thus, there is likely to be less "leakage" to other educational programs or[7] public services or tax reduction that may not be a high federal priority.

Summary of Grant Types

There are five major grant types that can be used by the federal government to increase the provision of educational services by SLEAs that respond to the national interest. Each has the potential for increasing the amount of education or specific types of education that are produced, but each also has the potential for supporting the provision of other public goods or reducing state and local tax burdens. In the next section, we will provide some empirical estimates of the proportion of grant dollars under each grant form that contribute to the expansion of educational services as well as assessments along other pertinent dimensions. In the final section of the paper, we will consider these findings in the context of determining an appropriate federal grant policy in education.

III. PROBABLE EFFECTS OF GRANT FORMS

The purpose of this section is to assess the potential fiscal effects of different types of educational grants according to the empirical data available on the subject. Clearly, an empirical assessment will depend upon the set of criteria imposed. Four principal criteria will be used in this section. First, how much of an increase in educational spending at the state and local level will be forthcoming for every dollar of federal aid under different grant forms? Second, how variable is the response in educational expenditures among different state and local units likely to be? Third, what is the potential of each grant form for targeting educational expenditures from the federal government to promote specific educational activities at state and local levels that are considered to be in the national interest? And, finally, how extensive are the regulations and guidelines that are likely to accompany the grant? Each of these criteria requires some discussion.

As we stated previously, there are a number of fiscal responses that a government unit can make in response to the receipt of a grant from a higher unit of government. It can use the grant to increase spending on the particular good under scrutiny, in this case education; it can use the grant to increase spending on other goods; and it can use the grant to reduce its own level of tax effort and replace what would have been spent on the good from its own resources. In actuality, the response is likely to be a combination of all three. But, from a federal perspective, we must be concerned primarily with the extent to which a grant is actually used to support the focus of national concern for which it was intended. Accordingly, we wish to summarize the results of studies attempting to ascertain this factor.

In viewing the efficiency of a particular form of federal grant in education, it is not enough to know how much the grant will stimulate state or local educational spending on the average. It is also important to know the possible effect of a grant form in promoting uniformity versus variability of response. For example, if it is a national concern to serve disadvantaged youngsters or handicapped ones, surely the most desirable policy would be one in which such youngsters in similar situations are treated uniformly across the country. However, if the fiscal response of SLEAs is highly variable, with some governmental units responding fully and others responding minimally to a given grant, the result is likely to be inferior to a more nearly equal national response (Reischauer 1977). Accordingly, the variability of spending in response to receipt of a federal grant is a second criterion.

To a large extent, the national concern in education is one that focusses on particular types of education or students, rather than education more generally. For example, it may focus on handicapped or disadvantaged or bilingual students, or those in a segregated environment; or it may be addressed to vocational education, metric education, or science. Each of these categories suggests that federal aid must be targeted towards a specific need within the educational domain, rather than toward the support of SLEAs more broadly. Some grant forms may be more appropriate for targeting than others, the essense of the third criterion.

The final criterion is related to targetability. In order to target grants to particular educational concerns, it is necessary to establish definitions, regulations, and guidelines for the use of grant funds by SLEAs. One of the major complaints about categorical grants programs in education has been that of excessive regulations that are costly to satisfy with respect to reporting requirements, duplication of effort, and distortion of other instructional programs to meet categorical grant requirements. Some grant forms seem to have intrinsically low or high regulatory requirements, a matter that is often closely related to the targetability of the funding. That is, targetability and regulation are closely connected, the latter representing one of the costs of achieving the benefits of the former. However, because of the explicit concerns on the cost of regulation, it is included as a separate criterion.

Increasing Educational Spending of SLEAs

A major purpose of federal grants in education is to increase the provision of educational outcomes that are in the public interest. This requires that SLEAs must increase their spending on such goods in response to federal grants. Since we know that federal grants can be spent by SLEAs in ways other than those intended by the federal benefactors, it is important to know the degree to which the federal grants stimulate SLEA spending within the area of federal concern. Unfortunately, studies of educational spending using econometric techniques to isolate the effect of the grant on educational spending cannot ascertain whether that spending is allocated specifically to the categorical program for which it was intended. All that these studies can do is determine if the grant is stimulating increases in educational spending, per se, at the state and local levels. Of course, this is not a problem where the only intent is to augment educational funding of SLEAs, for example, in the case where the recipient units of government have inadequate resources to provide an appropriate level of general educational funding. It is more of a problem in ascertaining the effect of grants in increasing expenditures in specific program areas for which they were designed. However, there is some external evidence on this matter that can be used to examine how the increased expenditures are allocated (Sjogren 1981).

Revenue sharing represents an attempt of the federal government to provide a portion of its revenues to state and local governments to use as the latter governmental units desire. As such, it is not designated specifically for education, although education is an eligible category of expenditure. How much of each dollar of revenue sharing grants is used to increase the funding of education? The answer to this can be determined by first knowing the amount of revenue sharing funds that is used for "new" spending as opposed to being used to reduce state and local tax burdens. Once the amount of revenue sharing that is allocated to new spending is known, it is possible to estimate the proportion of that which is alloted to education. These two factors taken together can provide an estimate of the amount of each revenue sharing dollar allocated to education by SLEAs.

Evaluations of revenue sharing suggest that there has been a great deal of difficulty in answering these questions (ACIR 1974; Juster 1976; Nathan et al. 1975; Nathan et al. 1977). In general, spending plans of recipients have not reflected accurately actual expenditures, and there is no direct method of knowing whether actual expenditures with revenue sharing funds represented new spending or revenue sharing subsidies for allocations that would have been made out of state-local sources. However, Nathan et al. (1975: 198, 206, 209) estimated that about 26 percent of revenue sharing funds were allocated to new spending. This figure is almost identical to the estimates by Gramlich and Galper (1973) in which they found that among ten urban governments, about 25-43 cents out of each dollar in grants was used to increase expenditures. Accordingly, we will assume that from 25 to 43 percent of each dollar of revenue sharing is allocated to new expenditures.

While we have no direct way of knowing what proportion of the new expenditure was for education, we do know that about 20 to 25 percent of state-local expenditures has been allocated to local schools in the years 1968-69 to 1976-77 (U.S. Department of Commerce 1980: 45). Applying this proportion to estimated new spending from revenue sharing, it would appear that from 5 to 10 percent of revenue sharing funds is allocated to increased spending on elementary and secondary schools. It is interesting to note that this figure is close to the one estimated independently by Juster (1976: 58) that the percentage of revenue sharing funds spent on education is between 3.8 and 6.1 percent.

General aid to education differs from revenue sharing in that it devotes the entire amount of the grant to education. While the federal government has not provided aid in this form, the state governments have traditionally aided local educational agencies through two types of general assistance for education. First, the states have provided general aid on a per-student basis, usually according to the number of students at each level and in different programs as reflected in the average daily attendance, or ADA. Second, since the beginning of the twentieth century, the states have provided equalization aid to their local school districts to compensate for an inadequate property tax base with respect to the provision of a minimum educational offering. Since these arrangements have still resulted in higher expenditures in wealthier school districts than poorer ones, legal challenges beginning in the late sixties have tended to either require or pressure the legislatures to increase the amount of equalization and the proportion of educational expenditures funded by the states.

A very large number of econometric studies have attempted to estimate the effects on educational spending of state aid to education. Recent reviews of that literature suggests that between 30 and 70 percent of such aid is allocated to education, with an approximate average of about 50 percent (Gramlich 1977; Tsang and Levin 1982). In contrast with 5-10 cents per dollar of grant that is spent on education from revenue sharing, about 50 cents per dollar of state general aid is spent on education by local educational agencies.

To what degree would this estimate be applicable to federal general aid to education rather than the state general aid on which these estimates are based? In all probability, the net effect on local educational expenditures of federal general aid would be somewhat lower, because there would be a tendency for state governments to reduce their support in response to increases in federal aid (Craig and Inman 1982). That is, at least some of the federal aid would be used to supplant state aid that would have been provided to LEAs in the absence of federal general aid. Accordingly, the impact of federal general aid to education on local educational expenditures would probably be towards the lower end of the estimated range for the state, or perhaps about 35 cents for each dollar of grant.

There have been a few studies of the effects of federal categorical grant dollars on local educational spending. The most extensive of these is the study by Feldstein (1978) which did an econometric analysis of the impact of grants under Title I of the Elementary and Secondary Education Act of 1965 on local educational expenditures. Using a sample of almost 4,700 school districts, Feldstein concluded that each dollar of federal aid under this program resulted in increased local expenditures of about 72 cents. Other analyses of federal categorical grants have also found rather high impacts of such grants on state-local spending, for example, in the range of a dollar or even more for each dollar of aid (Ladd 1974; Adams 1979; Vincent and Adams 1978). Based on these studies it seems reasonable to conclude that federal categorical grants produce an increase in state and local educational expenditures in the range of 70 cents to a dollar for each dollar of funds (Tsang and Levin 1982: 37). The results appear to differ from state to state, with at least one study showing a stimulative impact where each dollar of federal expenditure on Title I resulted in over five dollars of educational expenditure by local school districts in Massachusetts (Grubb and Michelson 1974).

We have referred previously to the Education Consolidation and Improvement Act of 1981 which has combined former categorical grants programs into block grants to SEAs and LEAs. Under ECIA the extensive regulations attached to the previous categorical grants would no longer pertain. While we have no empirical evidence that is applicable to this type of grant, it appears to differ rather little from general aid to education in that a lump sum is provided with relatively little accountability -- even though it is supposed to be used for funding programs previously covered by the categorical programs that it is replacing. Accordingly, our best estimate is that each federal dollar allocated to block grants would provide an impact on local expenditures in the lower range of that found for state general aid, 35 to 40 cents for each dollar of grant.

The effect of matching grants on educational expenditures of SLEAs is difficult to estimate for a number of reasons. First, there is no substantial federal experience of matching grants in education on which studies can be done. Second, the few states that provide some aid through matching grants do not provide a basis for generalization to a national situation, even though they may provide insights for those states. Specific studies have been done for Massachusetts (Feldstein 1975), Michigan (Park and Carroll 1979), and Colorado (Adams 1979). However, the structures of matching grants and their use preclude generalization, and the studies have mainly tried to ascertain the response to different matching ratios -- price elasticities -- rather than the local expenditure response to matching grants-in-aid.

The higher the matching ratio provided by the federal government, the greater the response of SLEAs, but the lower will be the stimulative effect on educational spending of the grant. For example, if the federal government provides 10 percent of the cost and the SLEAs 90 percent of the cots, it is likely that each dollar of federal contribution will be associated with a large state-local contribution and a strong stimulative effect on total educational expenditures for those LEAs that participate in the aid program. However, the incentives for the SLEAs to participate will be so low, that many will not choose to participate at all or will do so minimally. If the federal government were to pay 90 percent of the cost, it is likely that SLEAs would increase spending substantially on the programs. But, in that case, each federal dollar would be associated with only a very small increase in SLEA spending.

Variability of Increase in Spending

A second concern is how variable these results in spending are. That is, the average may mask considerable variability so that some SLEAs increase educational expenditures substantially while others use the funds primarily to reduce the state-local burden. If a relatively uniform national effect on spending is desired, then the variability of results may be highly undesirable (Reischauer 1977).

Revenue sharing may be considered to have highly variable results, with some units of government increasing their funding for education substantially, while others ignore education completely. Indeed, one of the principal findings on revenue sharing funds was the variety of their uses from place to place (Juster 1976; Nathan et al. 1977). Although precise empirical estimates of the variability of impact of revenue sharing dollars on educational spending are not available, the overall evidence on revenue sharing allocations suggests extreme variability.

In contrast, general aid to education as reflected in present state programs shows considerably less variability. If on the average about 50 cents of each dollar of aid is used to increase educational spending, one finds a standard deviation of about 20 cents (Tsang and Levin 1982). This means that LEAs in the sixteenth percentile are increasing their spending by about 30 cents for each dollar of aid and those in the eighty-fourth percentile are increasing their spending by about 70 cents. If one assumes that about 35 cents of each dollar of federal general aid would be used to increase expenditures of LEAs and that the coefficient of variation were similar to that for the state programs, the standard deviation would be about 7 cents. Under such assumptions, an LEA in the sixteenth percentile would spend about 28 cents for each dollar of federal general aid, and one in the eighty-fourth percentile would spend about 42 cents.

Categorical grants such as Title I show even more uniform spending patterns from district-to-district according to the Feldstein (1978) results. In part, this may be due to the extensive regulations and guidelines which require districts to provide comparable support for disadvantaged and non-disadvantaged from state-local sources, using the compensatory funds only for the excess costs associated with compensatory education. With an average spending effect of 70 cents per dollar of federal assistance, the standard deviation was about 12 cents, or only one sixth of the average. This means that a district in the sixteenth percentile would increase its expenditures by about 60 cents and one in the eighty-fourth percentile would provide an increase of 84 cents for each dollar of federal grant.

If we assume that block grants will be similar to present general aid results, they will be moderately variable in their spending effects among SLEAs. Finally, matching grants will be especially variable for the reason that districts may respond in very different ways to the grant formula. For example, districts with very low priorities for the area of national concern -- e.g., disadvantaged students -- may not participate in the program even when half or more of the costs are paid by the federal government. They may simply refuse to pay any portion of the costs for educational programs that are considered to be of low priority, such as districts where disadvantaged children are a small minority. In other cases, the districts will have higher priorities and will be very responsive to the reduction in the cost of the services implied by matching grants. Thus, even if SLEAs spend a substantial portion of matching grants on the appropriate educational services, there may be wide variability in the extent to which such SLEAs take advantage of the matching grants in the first place.

Targetability

The third criterion, targetability, refers to the ability to use the particular grant form to address specific educational areas of national concern. Revenue sharing simply lacks a capacity for targeting funds, since the overall purpose of this type of grant is to provide additional resources to state and local governments to use as they see fit. General aid to education is also difficult to target, except to the degree that the amount of aid can be adjusted according to the characteristics of the district. That is, more aid can be given to districts with large proportions of handicapped or disadvantaged or other students of national concern, or more funds can be provided to districts with meager tax bases. How the districts actually allocate these funds, however, is not within the scope of a general educational grant.

Categorical grants enable a high degree of targeting to particular types of students or particular services. Block grants have moderate targeting provisions since the specific groups of programs for which the funds are designated can be specified and funds provided in accordance with need. Again, block grants are probably similar to a general grant in targetability, unless strong regulations are used to establish accountability. The stronger the accountability in the direction of the specific purposes of the block grant, the greater the targetability. Finally, matching grants are highly targetable, since they can be provided for specific types of educational program expenditures. (For example, the State of Wisconsin provides 68 percent of the expenditures of LEAs for special educational services.)

Regulations

Targetability depends in part on the specific nature of the grant form, but it also is related to the regulations that are associated with a grant. Indeed, one of the reasons that Title I seems to be highly efficient in increasing educational expenditures is that such regulations work in inducing LEAs to use the funds for the education of disadvantaged youngsters. In fact, in a demonstration to ascertain what would happen when the regulations were relaxed, participating school districts diluted services for the disadvantaged by providing more services for the non-disadvantaged with the funds (Sjogren 1981: Chapter 4). Accordingly, it is useful to explore the degree to which regulation is an "intrinsic" part of the grant form.

Revenue sharing is associated with few regulations, since it is merely a conduit to provide more funding for state and local governments to use as they wish. General aid to education is also largely devoid of regulation because of its general nature. In contrast, categorical grants are necessarily associated with regulations that define the nature and use of the funds, and these regulations can often be extensive. Of course, as we will note in a following section, over-regulation can occur. However, we should not assume that regulations need always be burdensome and onerous. Block grants are also associated with some regulation, although the Reagan proposals would seem to minimize them. Finally, matching grants are likely to include moderate levels of regulation in their attempt to define the nature of the service for which funds will be provided as well as acceptable procedures for accounting for the category of expenditures and in applying for the matching grants.

Summary of Federal Grants

Table One summarizes the results of the evaluation of the five different grant forms. Each row represents a different criterion, so the five different grant forms can be compared according to a single evaluative dimension. Each grant form can also be reviewed according to all four criteria by scanning the appropriate column. The table can also be used to select the most appropriate grant form for any given set of criteria. For example, if a high impact on state-local educational expenditures in conjunction with low variability and high targetability is desired, categorical grants have no equal. But categorical grants are also associated with substantial regulations, and an alternative with lower regulations might be considered with some sacrifice of performance on the other dimensions. This is the type of analysis that must be carried out, in reconsidering federal grants in education, but it must be done in a concrete manner.

One way of applying Table One is to begin by specifying a particular national concern. This should be followed by the type of educational response needed at the local level as well as its fiscal requirements. At this stage, one can design alternative grant approaches to ascertain which one is most likely to achieve the desired objective. In the final section

TABLE ONE: SUMMARY OF PREDICTED CHARACTERISTICS OF FEDERAL GRANTS IN EDUCATION

	Revenue Sharing	General Aid to Education	Categorical Grants	Block Grants	Matching Grants
Impact on State-Local Educational Expenditures	very low	moderate	high to very high	moderate	depending on matching rate
Variability in State-Local Educational Expenditures	very high	moderate	low	moderate	high
Targetability	nil	low	high	moderate	high
Regulations	low	low	moderate to high	low to high (with corresponding effects on targetability)	moderate

of this paper, we will consider a number of different issues that might be raised in such a determination.

IV. ALTERNATIVES AND CONSEQUENCES

The previous sections discussed the character of a federalism and the challenges it creates for addressing national educational concerns. A list of national concerns with educational implications was proposed, and an analysis of federal policy levers for getting state and local educational agencies to take those needs into account was discussed. The prime policy considered in this paper was that of federal grants to SLEAs. An analysis was made of the theory of such grants and how they affect the behavior of SLEAs, and five specific types of grants were analyzed with respect to their mechanics and probable effects on SLEAs. This was followed by an empirical analysis of such grants according to four important criteria. In this section, we wish to explore briefly some alternatives and their consequences for considering the nature and role of a fiscal federalism in education.

If it is assumed that a specific national concern is identified in which it is desirable to induce SLEAs to alter their behavior to take account of the concern, one must ask the question, which grant mechanism is likely to be most efficient? Clearly, the answer to this question must take account of the fact that there are many different criteria that can be imposed on the analysis. Several examples of such criteria and their applicability to the evaluations reflected in Table One are reviewed in this section.

Potential Criteria for Federal Grant Policies

There are a large number of potential objectives that might be embodied in federal grants in education besides the specific national concerns discussed in a previous section. Five of these are discussed below.

1. Maximize impact on educational expenditures

One goal would be to design a grant that maximizes the impact of federal aid on educational expenditures of SLEAs. That is, the larger the stimulative effect of the on state-local educational spending in the area of national concern, the greater the presumed impact in meeting national policy objectives. Such a goal would suggest that when educational grants are used to substitute for state-local support that would have been forthcoming in the absence of the grant or to subsidize non-educational public goods, the results are less desirable than when the funds are used for education. When this criterion is imposed, categorical grants would be the most preferable; revenue sharing would be the least preferred solution; and general aid to education and block grants would be between these extremes. The effects of matching grants are dependent upon matching rates.

2. Maximize uniformity of response

In general, state and local units of government may have very different responses to the same grant arrangements. This seems to be evident if one examines the empirical studies exploring the apparent effects of state aid on educational spending of local educational agencies. The results vary markedly from state to state for studies done within states, as well as differing drastically among different samples of local school districts (Tsang and Levin 1982). Apparently, SLEAs with different demographic and political structures respond quite differently to grants. But if national educational concerns require that to a large extent the SLEAs treat a given type of student or national educational concern in a rather uniform way on a national basis, one might seek to employ grant programs that provide a relatively consistent national response with respect to educational spending. For example, handicapped children with a specific learning obstacle should probably be alloted similar learning resources around the country if such students are considered to be a focus of national concern. This is likely to be true for many other types of national educational policies as well. On this dimension, categorical grants are the most desirable, followed by general aid and block grants. Matching grants and revenue sharing are the least desirable because of their highly variable consequences on spending of SLEAs.

3. Broad-band versus targeting of impact

A third concern might be that of providing broad educational support for SLEAs to augment their base of educational spending as opposed to providing support only for narrow programs in the national interest. The case for broad-band effects is that some districts are handicapped in meeting national educational concerns only because of a lack of resources rather than priorities. For example, the "undereducation" that might be found in some states and school districts reflected in low educational expenditures might be a function of an inadequate tax base for support of education. In this case, it might be desirable to augment that resource base through general educational grants in order to assist that entity to meet national educational priorities. However, in other cases, it might be evident that there are low priorities at state-local levels for national concerns. This situation would suggest that the grants ought to be highly targetable to a narrower educational concern such as the education of a specific type of student or the provision of particular educational offerings. In that event a targetable grant is appropriate. Categorical and matching grants provide high targetability followed by block grants. Revenue sharing is characterized by virtually no targetability, while general aid to education represents the best broad-band grant.

4. Minimize regulation

A fourth concern is that of minimizing regulation. In actuality, any approach that targets resources towards particular concerns will require some regulation in the definition of those concerns and the establishment of accountability. Perhaps the more appropriate stance towards regulation is to consider that any regulation has a cost in terms of its compliance and enforcement requirements and a benefit in terms of the degree to which it contributes to productive educational outcomes of use to national, state, and local constituencies.

The problem of regulation seems to be that in some cases the costs exceed the benefits, while in other cases, the costs of regulation are borne by state and local entities while the benefits are conferred on the nation as a whole. In both cases, there will be resistance to regulation, by SLEAs and it is appropriate that each regulation be weighed with respect to its costs and benefits so that subsidies be provided to any entity whose burden is greater than the value of the benefits accruing from the regulation. In the case where social costs exceed social benefits, the regulation should be eliminated or modified.

The reason that this may be a more productive approach to minimizing regulation is that any narrow national concern that requires targetability will also require regulation. That is, the very nature of any specific national concern in education, suggests the subsidization of a specific type of educational service. Some definition of that service and regulations for ensuring its delivery will be required in association with the grant. Accordingly, there is a close association between targetability and regulation. The real goal must be to tailor regulations to meet the cost-benefit criteria set out above rather than to assume that one can target funds effectively and eliminate regulations simultaneously. A number of productive suggestions have been made in the literature to accomplish this.[9]

5. Increase state-local expenditures generally

If it is assumed that allocations to education are sub-optimal from a national perspective because some state-local entities lack an adequate resource-base to meet all of their legitimate public needs, one might wish to consider an overall plan for augmenting state-local expenditures generally according to need (Neenan 1977). Under such a plan, education would benefit with other public goods as states and local governments were able to provide larger allocations for all of their public needs. Such grants could be given according to the degree of "public poverty", and revenue sharing would be the most appropriate candidate. However, with respect to the specific effects of such grants on education, it is important to note that: (a) only a small portion of the total grant is likely to be allocated to education, and (b) there is virtually no ability to target such aid to national educational concerns of a specific nature.

Shifting from Categorical to Block Grants

One of the implications of this analysis is that the shift from categorical to block grants will have an impact on all of the dimensions set out in Table One. The effect of each dollar of federal grant on educational expenditures of SLEAs will be reduced under block grants. The variability in spending responses of SLEAs to federal grants in education will increase. The targetability of federal educational grants will be reduced along with the regulations accompanying them. The predicted impact on spending is supported by a recent econometric analysis and simulation of the effects of shifts in federal aid from categorical to block grants:

> ...how Federal aid is given--with constraints or without--has a big effect on how aid is allocated. Aid with maintenance of effort provisions or matching requirements is spent in the end on local education. Aid without "strings"...does not go to education and may even have a negative effect on local spending if states over-respond in their downward adjustment of state education aid (Craig and Inman 1982: 14).

A simulation of the shift from categorical to block grants for the year 1977 would have reduced spending of LEAs by $210 a student at the same level of federal aid.

The New Federalism

When President Reagan delivered his budget message for fiscal year 1983, he emphasized a departure from past federal fiscal policies, calling this change the "new federalism." Under the new federalism, most of the federal initiatives in education would be returned to the states. The new federal role in education, according to Education Secretary Terrel Bell, would consist of some five functions: (1) leadership for educational excellence; (2) gathering and evaluating national educational data; (3) providing temporary assistance to meet gross educational deficiencies that are national in scope; (4) guaranteeing equal opportunity and equal rights with a shift toward persuasion rather than coercion; and (5) research and development for the improvement of education (Shannon 1982: 3).

To a very large extent this new federalism would eliminate federal grants in education. That is, one of the three major policy levers for inducing SLEAs to attend to national concerns would be removed from the arena of federal policy. Whatever the wisdom of such a change, it should be recognized that what is called the new federalism is really equivalent to the pre-1960's old federalism in which the states and local educational agencies simply made decisions that satisfied their own priorities without considering those of the nation. That was the driving force for the federal fiscal interventions in the first place. Unfortunately, the dilemma of harmonizing educational policies at a state-local level with the needs of the nation has not disappeared, and the "new federalism" does not represent a real alternative to federal fiscal policy in this area. Rather, what it does is relinquish a potentially powerful tool for reconciling the interests of the nation with those of its constituent governments. The gap of fiscal federalism is unlikely to be filled by ignoring the basic dilemma inherent in depending upon 15,000 or so educational agencies and 50 states to provide the appropriate educational policies for meeting national needs.

It is clear that the federalism of the Sixties and Seventies will not be the federalism of the eighties (Advisory Commission on Intergovernmental Relations 1981). In education as in other areas, the relation of the federal government to state and local entities is being reassessed. Further, the national interest in education and alternative ways of meeting national educational needs are also under review. The time seems propitious for reviewing the potential of alternative federal grant policies for meeting national concerns within a fiscal federalism. The analyses presented in this paper are designed to provide assistance in addressing these challenges.

FOOTNOTES

[1] For historical background on these points, see Jackson Main 1965; R. Freeman Butts 1978; D. Tyack 1967 and 1974; and L. Cremin 1980.

[2] This is a central theme in Levin 1982.

[3] These themes are taken from both the scholarly literature on this subject such as Bowen 1977; Owen 1974; and Weisbrod 1964, as well as popular discussions relating education to the national interest.

[4] Various dimensions of the issues of federal finance of education are found in Timpane 1978.

[5] As complex as the fiscal issues are, the issues of program implementation are infinitely more complex. See for example, Berman and McLaughlin 1975.

[6] The initial use of Title I funds appear to have followed this pattern, where federal money supplanted state-local support. See R. Martin and P. McClure 1969.

[7] Both theoretical analysis (Wilde 1971) and empirical analysis (Orr 1976) suggest that categorical grants have a greater impact on state-local spending than an equal lump sum grant for the same purpose.

[8] Reischauer 1977 argues that this is the intrinsic weakness of all federal grants-in-aid, and he provides detail on the reasons for the variability.

[9] For a general view on these issues, see Bardach and Kagan 1982. For applications to federal grants to education, see Chubb 1981 and Bardach 1982.

REFERENCES

Adams, Kathleen E., A Changing Federalism: The Condition of the States, Report No. F82-1, Denver, CO: Education Finance Center, Education Commission of the States, April 1982.

_____, "Fiscal Response and School Finance Simulations: A Policy Perspective," Denver, CO: Education Finance Center, Education Commission of the States, December 1980.

_____, Analysis and Comparison of Fiscal Response in Four States, Denver, CO: Education Finance Center, Education Commission of the States, 1979.

Advisory Commission on Intergovernmental Relations, The Future of Federalism in the 1980s, Washington, D.C.: ACIR, July 1981.

_____, General Revenue Sharing: An ACIR Re-evaluation, A-48, Washington, D.C.: ACIR, October 1974.

Bardach, Eugene, "Educational Paperwork," IFG Project Report No. 82-A5, Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, 1982.

Bardach, Eugene, and R. Kagan (eds.), Social Regulation: Strategies for Reform, San Francisco, CA: Institute for Contemporary Studies, 1982.

Baron, Harold M., "Race and Status in School Spending: Chicago 1961 - 1966," The Journal of Human Resources, Vol. VI, No. 1 (Winter 1971), pp. 3-24.

Barro, Stephen M., "Federal Education Goals and Policy Instruments: An Assessment of the 'Strings' Attached to Categorical Grants in Education," in M. Timpane 1978.

_____, Theoretical Models of School District Expenditure Determination and the Impact of Grants-in-Aid, Santa Monica, CA: The Rand Corporation, 1972.

Benson, Charles, The Economics of Public Education, Third Edition, Boston, MA: Houghton Mifflin, 1978.

Berman, Paul, and Milbrey McLaughlin, Federal Programs Supporting Educational Change, Vol IV: The Findings in Review, R-189/4-HEW, Santa Monica, CA: The Rand Corporation, April 1975.

Birman, Beatrice F., "Problems of Overlap Between Title I and P.L. 94-142: Implications for the Federal Role in Education," Educational

Evaluation and Policy Analysis, Vol. 3, No. 3 (May-June 1981), pp. 5-19.

Bowen, H. R., Investment in Learning: The Individual and Social Value of American Higher Education, San Francisco, CA: Jossey-Bass, 1977.

Bradbury, K., and H. F. Ladd, with C. Christopherson, "Proposition 2-1/2: Initial Impacts," IFG Project Report No. 82-A12, Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, 1982.

Break, George F., Financing Government in a Federal System, Washington, D.C.: The Brookings Institution, 1980.

Bromley, D. A., "The Other Frontiers of Science," Science, Vol. 215, No. 4536 (February 26, 1982), pp. 1035-04.

Butts, R. F., Public Education in the United States, New York, NY: Holt, Rinehart, and Winston 1978.

Catterall, J., and T. Thresher, "Proposition 13: The Campaign, the Vote, and the Immediate Aftereffects for California Schools," IFG Project Report No. 79-B5, Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, 1979.

Chernick, Howard, "Block Grants for the Needy: The Case of AFDC," Journal of Policy Analysis and Management, Vol. 1, No. 2 (Winter, 1982), pp. 209-22.

Chubb, John E., "The Political Economy of 'Excessive' Regulation: The Case of Educational Opportunity," IFG Project Report No. 81-A12, Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University 1981.

Courant, P. N., E. M. Gramlich, and D. L. Rubinfeld, "The Stimulative Effects of Intergovernmental Grants: Or Why Money Sticks Where It Hits," in Fiscal Federalism and Grants-in-Aid, P. Mieszkowski and W. H. Oakland (eds.), Washington, D.C.: The Urban Institute, 1979, Chapter 2.

Coons, J., W. Clune, and S. Sugarman, Private Wealth and Public Education, Cambridge, MA: Belknap Press of Harvard University Press, 1970.

Craig, S. G., and R. P. Inman, "Federal Aid and Public Education: An Empirical Look at the New Fiscal Federalism," Philadelphia, PA: University of Pennsylvania, Department of Economics, 1982, processed.

Cremin, Lawrence, American Education -- The National Experience, 1783-1876, New York, NY: Harper and Row, 1980.

Elazar, Daniel J., *American Federalism: A View From the States*, Second Edition, New York, NY: Crowell, 1972.

Feldstein, Martin, "The Effect of Differential Add-on Grants: Title I and Local Education Spending," *Journal of Human Resources*, Vol. 13, No. 4 (1978), pp. 443-58.

______, "Wealth Neutrality and Local Choice in Public Education," *American Economic Review*, Vol. 65 (1975), pp. 75-89.

Gramlich, Edward M., "Intergovernmental Grants: A Review of the Empirical Literature," in W. E. Oates (ed.), *The Political Economy of Fiscal Federalism*, Lexington, MA: Lexington Books, 1977, pp. 219-39.

Gramlich, Edward M., and Harvey Galper, "State and Local Fiscal Behavior and Federal Grant Policy," *Brookings Papers on Economic Activity*, No. 1, 1973, pp. 15-65.

Grubb, W. Norton, and Stephen Michelson, *States and Schools*, Lexington, MA: Lexington Books, 1974.

Gurwitz, Aaron S., and Linda Darling-Hammond, with the assistance of Sara R. Pease, *Maintenance of Effort Provisions: An Instrument of Federalism in Education*, R-2684-ED, Santa Monica, CA: The Rand Corporation, 1981.

Hess, R., and J. Torney, *The Development of Political Attitudes in Children*, Chicago, IL: Aldine Publishing Company, 1967.

Juster, F. Thomas (ed.), *The Economic and Political Impact of General Revenue Sharing*, National Science Foundation, Research Applied to National Needs, Washington, D.C.: April, 1976.

Kirst, Michael W., "Teaching Policy and Federal Categorical Programs," IFG Program Report No. 82-B1, Stanford, CA: Institute for Research on Educational Finance and Governance, February, 1982.

Kirst, Michael W., and R. Jung, "The Utility of a Longitudinal Approach in Assessing Implementation: A Thirteen Year View of Title I, ESEA," *Educational Evaluation and Policy Analysis*, Vol. 3, No. 5 (October, 1980), pp. 17-34.

Ladd, Helen F., "Local Education Expenditures, Fiscal Capacity, and the Composition of the Tax Base," *National Tax Journal*, Vol. 28 (June 1975), pp. 145-58.

Lazerson, Marvin, and W. Norton Grubb (eds.), *American Education and Vocationalism: A Documentary History, 1970-1970*, New York, NY: Teachers College Press, 1974.

Levin, Henry M., "Categorical Grants in Education," IFG Policy Perspectives, Spring, 1981.

_____, "A Decade of Policy Developments in Improving Education and Training for Low-Income Populations," in R. Haveman (ed.), A Decade of Federal Anti-Poverty Programs, New York, NY: Academic Press, 1977, Chapter 4.

_____, "Issues in Educational Choice," Paper prepared for Conference on Tuition Tax Credits, and to be published in volume edited by H. Levin and H. T. James on tuition tax credits, Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, 1982.

Main, Jackson T., The Social Structure of Revolutionary America, Princeton, NJ: Princeton University Press, 1965.

Martin, Ruby, and Phyllis McClure, Title I of ESEA: Is It Helping Poor Children? Washington, D.C.: Washington Research Project and NNACP Legal Defense and Educational Fund, Inc., 1969.

McLaughlin, Milbrey W., Evaluation and Reform: The Elementary and Secondary Education Act of 1965, Title I, Cambridge, MA: Balbinger 1975.

Musgrave, Richard A., and Peggy B. Musgrave, Public Finance in Theory and Practice, Second Edition, New York, NY: McGraw-Hill Book Company, 1976.

Nathan, R. P., A. D. Manvel, S. E. Calkins, and Associates, Monitoring Revenue Sharing, Washington. D.C.: The Brookings Institution, 1975.

Nathan, R. P., Charles F. Adams, Jr., et al., Revenue Sharing: The Second Round, Washington, D.C.: The Brookings Institution, 1977.

National Institute of Education, Compensatory Education Study, 6 Volumes Washington, D.C.: 1977.

Neenan, William B., "General Revenue Sharing and Redistribution," Review of Social Economy, Vol. XXXV, No. 1 (April 1977), pp. 25-36.

Oates, W., Fiscal Federalism, New York, NY: Harcourt, Brace, Jovanovich, 1972.

_____ (ed.), The Political Economy of Fiscal Federalism, Lexington, MA: Lexington Books, 1977.

Okun, Arthur M., The Political Economy of Prosperity, Washington, D.C.: The Brookings Institution, 1970.

Orr, Larry, "Income Transfers as a Public Good: An Application to AFDC," American Economic Review, Vol. 66, No, 3 (June 1976), pp. 359-71.

Owen, John D., "The Distribution of Educational Resources in Large American Cities," Journal of Human Resources, Vol. VII, No. 1 (Winter 1972), pp. 26-38.

______, School Inequality and the Welfare State, Baltimore, MD: The Johns Hopkins Press, 1974.

Park, R. E., and S. J. Carroll, The Search for Equity in School Finance: Michigan School District Response to a Guaranteed Tax Base, Santa Monica, CA: The Rand Corporation, 1979.

Rawls, John, A Theory of Justice, Cambridge, MA: The Belknap Press, 1971.

Reagan, Michael D., and John G. Sanzone, The New Federalism, Second Edition, New York, NY: Oxford University Press, 1981.

Reischauer, R. D., "Governmental Diversity: Bane of the Grants Strategy in the United States," in W. Oates (ed.), 1977, Chapter 8.

Sexton, Patricia, Education and Income: Inequalities of Opportunity in Our Public Schools, New York, NY: Viking Press, 1961.

Shannon, Thomas A., "Education's Role in the 'New Federalism'," School Board News, Vol. 2, No. 3 (February 17, 1982), p. 3.

Sjogren, Jane, Federal Aid to Education: Local Response to Federal Policy, Unpublished doctoral dissertation, Stanford, CA: Stanford University, (December 1981), Chapter 4.

Thornblad, Eric, The Fiscal Impact of a Higher Concentration of Low Income Families Upon the Public Schools, Unpublished doctoral dissertation, Urbana, IL: University of Illinois, 1966.

Thurow, Lester, Generating Inequality, New York, NY: Basic Books, Inc., 1975.

Timpane, M., The Federal Interest in Financing Schooling, Cambridge, MA: Ballinger, 1979.

Tsang, Mun C., and Henry M. Levin, "The Impact of Intergovernmental Grants on Educational Spending," IFG Project Report No. 82-A14, Stanford, CA: Institute for Research on Educational Finance and Governance, Stanford University, 1982.

Tyack, David B., The One Best System, Cambridge, MA: Harvard University Press, 1974.

______, Turning Points in American Educational History, Waltham, MA: Blaisdell Publishing Company, 1967.

U.S. Department of Commerce, Bureau of the Census, Historical Statistics on Governmental Finances and Employment, 1977 Census of Governments, Vol. 6, No. 4, Washington, D.C.: 1980.

U.S. Department of Health, Education and Welfare, National Center for Education Statistics, Digest of Education Statistics 1979, Washington, D.C.: 1979.

Vincent, Philip, and Kathleen Adams, "Fiscal Response of School Districts: A Study of Two States--Colorado and Minnesota," Denver, CO: Education Finance Center, Education Commission of the States, October, 1978.

Weisbrod, Burton A., External Benefits of Public Education, Princeton, NJ: Industrial Relations Section, Princeton University, 1964.

Wilde, James A., "The Analytics of Grant Design and Response," National Tax Journal, Vol. XXIV, No. 2 (June 1971), pp. 143-55.

______, "The Expenditure Effect of Grant-in-Aid Programs," National Tax Journal, Vol. XXI, No. 3 (September 1968), pp. 340-61.

Wilkerson, Doxey A., "The Negro School Movement in Virginia: From "Equalization" to "Integration"," Journal of Negro Education, Vol. XXIX (Winter 1960), pp. 17-29.

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EDUCATIONAL ADEQUACY FOR THE 1980S AND BEYOND

Nolan Estes

Introduction

Other papers in this series deal at length with the meaning of educational adequacy in both the present and the past. One of their inescapable conclusions was that there are no absolutes in this area. The degree of adequacy attained in the U.S. schools is a function of societal demands, which are constantly in flux. What is considered adequate today is certain not to be considered in the future.

I propose in this paper to set down some of the more generally accepted forecasts of future developments in American society and attempt to show what new responsibilities these developments pose for the schools and for the various levels of government that support and control the schools.

The last major section will offer a set of goals and suggest the role that federal government should adopt to further their attainment.

Adequate educational finance for the 1980s is the financial support needed to insure that the schooling provided preschool, elementary, and secondary children is sufficient to produce citizens who are literate, economically self-sufficient, and able to cope with the changing world around them through the mid twenty-first century. While this mission of American education is generally supported by most citizens, there is little consensus as to the elements that should comprise the desired schooling, the delivery system which would guarantee that all children achieve the desired ends, and the methods for obtaining and utilizing the financial resources.

Many different definitions of educational adequacy are inherent in current educational policies. These definitions permeate federal and state legislation and regulations, as well as the policies of local boards of education. Many of these are firmly entrenched, and it is not likely that they will all be altered substantially during the 1980s, whatever the federal role in education during that period - and it appears to be changing rapidly. Therefore, this paper gives due consideration to existing defintions. It is not politically and economically feasible to do otherwise. However, it does appear feasible to point up several dimensions of educational adequacy that are based upon trend information and reasonable futures predictions, and finally to translate these into priority instructional areas, delivery systems, and assessment systems - - all essential in defining and specifying financial adequacy.

In arriving at the adequacy framework presented herein, I reviewed many studies of and reports on educational finance. Interestingly, many of these studies lean heavily on statistically based financial predictions, and some incorporate future predictions other than financial: demographic, political, social, etc. I also reviewed recent futures research and specualtion in an attempt to identify agreed-up trends. This research reveals that there are many discrepancies between Americans' expectations of education and their willingness to provide the financial resources to achieve their expectations.

The World and the USA

World problems are forcing the emergence of an equitable and dynamic equilibrium between humans and their environment. We are beginning to understand the ineluctable interdependence of the world's people. The world and the USA are indeed inextorably involved in a tidal wave of transition and change such that anyone's problems anywhere are everyone's problems everywhere. Some of the emerging world trends that particularly affect the U.S. are:

- declining and shifting influence of the major world powers
- the potential for conflict among North and South powers particularly the "haves" and the "have little or nots"
- The acceleration of social, political and economic changes throughout the world and the associated complexities
- the dim prospects for international tranquillity given the unsolved problems of crowding, hunger, and starvation, among others
- the inadequacy of existing world institutions to address the world's problem.

At the same time, there are new social trends in the U.S. Among these are:

- a growing pressure for equity in income redistribution
- a pervasive distrust of large institutions
- the emergence of a revitalized citizenship and patriotism ethic
- the impact of inflation as a long-term influence
- the strengthening of participatory democracy
- the increasing concern for relevancy, efficiency and accountability among all sectors.

The interdependence of humans and the images of the future which they perceive as important will clearly impact educational adequacy during the remainder of this century.

The People

World population will continue to escalate exponentially, well into the twenty-first century, with the underdeveloped countries showing greater percentage gains than the developed countries. The world's people continue on a collision course and this will inevitably result in crisis after crisis regarding space, the biosphere, energy, food, natural resources, politics, economics and social systems. These crises will be accentuated by a continuing world-wide demand among disadvantaged people, particularly, for liberty, the pursuit of happiness and a more equitable share of power.

Here in the USA, many population trends will affect educational adequacy. Some of those thought to be most likely to occur, with the greatest impact on educational adequacy, are:

- The population will be larger, and the average lifespan will be longer.
- The population will include a larger percentage of senior citizens, many of whom will retire earlier.

- The levels of literacy and education in the population will continue to rise.
- The labor force will continue to expand substantially.
- A baby boomlet is likely to occur.
- The migration of the population from the Snowbelt to the Sunbelt will continue.
- The Hispanic minority population will outnumber the black population during the 1990s.
- A higher percentage of women will be employed in the work force and a larger percentage will be mothers of young children.
- A shorter work week and more leisure time will be the rule for most workers.
- Differentiated staffing will be more common with proportionally more jobs for paraprofessionals in fields like law, medicine, education and social services.
- Flexible hours and part-time jobs will be much more widely available.
- Few occupations will be regarded as necessarily staffed by a particular sex.
- A smaller percentage of the work force will be needed in goods-producing industries, while a larger proportion will be needed in service industries.
- There will be more jobs for technicians.
- Political and social pressures to improve the lot of senior citizens will continue to erode the resources for other social services, including education.

Clearly, these and other trends among the population will affect educational adequacy during the remainder of this century, particularly in the area of curriculum, but in financial arrangements, staffing, school construction, expansion of opportunity for minorities, extension of schooling both upward and downward, and the like.

The Environment and Material Resources

The remainder of the twentieth century will be characterized as those transition years when the world environment and material resources forced a new philosophy of human existence to emerge. The period will mark the decline or disappearance of substantial finite material resources which have been essential in developing the world's great powers. It will accentuate the disproportionate distribution of the available material resources among world powers and, at least temporarily, favor economic and political systems which tend to widen the gaps between the "haves" and the "have nots." But a powerful focus on interdependence of the world's people may yet create the environment needed for survival during the twenty-first century.

World environmental conditions affect every phase of life and living in the USA. For example, transportation, communication, manufacturing, service, maintenance, politics, government and the general economy are affected by even the slightest change in availability of material resources. Environmental changes most likely to affect educational adequacy include changes in governance, learner needs, home/school relations, lifelong learning, and technology. I shall discuss each of these in the following section.

Environmental Changes Affecting Educational Adequacy

Governance -- In order for educational institutions to be more responsive to student, parent, and taxpayer needs and to be more accountable to the citizenry, new images for educational futures need to be developed in concert with other institutions that may also be affected. Future-oriented educational planning should be initiated and orchestrated as a major mission of educational governance.

Some of the trends and considerations relevant to future-oriented planning of educational programs include:

- Futures governance and program planning will encompass an array of new frameworks and approaches for charting educational adequacy.
- Many societal agents parents, students, legislators, others-will interact with educators in the futures planning process.
- High levels of performance will be expected of all educators, especially leadership personnel; increasingly, educational adequacy will be expressed in terms of the performance of staff.
- The educational system will receive a larger portion of funding from the federal government and will more frequently become a mechanism for carrying our government policy regarding educational adequacy.
- Broad-based participation of educators, parents, and other citizens in determining resource allocation and assessing educational adequacy will be required.

Learner Needs

The remainder of this century should witness the continued focus of educational programming upon the learner and his/her individual needs. The trends in this direction are so very significant that to alter them substantially at this time would be tantamount to scuttling the ship in the middle of the voyage without a more viable mode of transportation to complete the trip. The needs-response framework for elementary and secondary education and the learner goals which are the expectations of a literate citizen are based upon several commonly held assumptions about learners, the learning process and the institutional framework, processes and resources needed to attain the desired educational outcomes. These elements are not always fully compatible (i.e., learner characteristics vs. societal expectations) and therein lies the challenge for the remainder of this century. Certain of these elements are presented here as dimensions of adequate educational programming that merit continuation:

- The literate citizen who is able to function in the twenty-first century needs time for maturation. For most individuals this maturation will require at least 13 years of general education. Some students may need less time; other with special needs will require substantially more.

-- The needs of learners can be met most effectively by schools which are organized and operated as the social institution which has primary responsibility for guiding learners toward literacy, economic independence and social mobility. Schools will cooperate with other social institutions which also contribute to these learning arenas but which do not acknowledge them as their primary mission.

-- Groups of learners who have special needs will continue to present themselves for schooling; the school's mission will continue to be responsive to these diverse learner needs consistent with agreed upon societal goals and expectations.

-- Schools and society will recognize that a wide range of performance is to be expected among learners.

-- Schools will provide a basic core of preschool, elementary and secondary general education for all students.

-- Learners will have increasing need to develop coping skills and techniques and skills in human relations and communications, in dealing with uncertainties, particularly the unknown, in choosing wisely among alternatives and in understanding the consequences of their choices. Additionally, they will need skills and information to implement their choices and to live with them.

-- Learners will have increasing need, particularly as they approach maturation, for freedom to partially choose educational programs and modes of learning.

-- Learners will have increasing need to obtain guidance and information from adult school personnel, many of whom will serve as adult role models. Additionally, they need to interact with school personnel who care about them, who radiate warmth and genuine interest in them.

Home - School Relations--Home-school relationships changed substantially during the past three decades. The 1950's saw educators in the driver's seat of schooling with parents and the home following their teacher's and administrators' philosophy, policies and directives. During the 1960's and 70's a turnaround in home-school posture became a significant trend. Parents became more concerned about the schools and the schooling their children were receiving. Parent action groups became an effective strategy for influencing elected school governance policies, the allocation of resources and the evaluation and assessment of educational adequacy.

Simultaneously, these three decades marked the emergence of a new image of the American family and its lifestyle. Gone was the traditional family image -- two married adults, two shining children, a dog and cat in a neat suburban cottage with dad off to work and mom to the kitchen. The crunch of poverty within the inner city areas foretold the need for new home/school relationships for the 1980's and beyond. Some of the past trends which may affect planning for educational

-- Differences in the American family and its lifestyles will be accentuated particularly among the various economic levels -- poverty to affluence -- and among inner-city dwellers, suburbanites and the rural poor. The "standard American family" will no longer prevail.

-- There will be more single parent families with fewer opportunities for parentsibling interactions at home.

-- More women will be employed outside the home, enter into the work force while their children are in their preschool years and continue their employment throughout the schooling of their children.

-- The "affinity group" family is emerging; it is held together by the mutual needs of members rather than by traditional blood ties.

-- Many parents of children under 12 years of age reflect a different family lifestyle, characterized by unwillingness to make sacrifices; by permissiveness, and new sex roles. These parents have little desire to push their children academically. These attitudinal changes may be escalating.

-- Changes in families and family lifestyles will impact home-school relations particularly -- motivation for learning, follow-up home directed learning, the home study environment and parental roles in assisting the school.

Life-Long Learning -- "Life-long learning" will be the watch words of the twenty-first century and the key to survival. Whatever the remainder of this century holds for man, much of which cannot be predicted now, his survival will depend upon ability to continue to learn and to adapt to the changing world.

The process of life-long learning will begin with the family during the child's infancy, then switch more to the school as schooling begins. As individuals mature, they will assume more and more responsibility and initiative for life-long learning. The schools' role then will become that of the resource repository and service agency.

During formal general education schooling, each individual needs to develop a pattern of future planning (for self) oriented behaviors along with sufficient skills to chart and monitor his/her future.

There is much evidence and many emerging trends that life-long learning is an essential dimension of adequate education. These trends include:

-- Work and the work place will be the focus of education as well as worker self-renewal programs designed to minimize human resource depletion.

-- Continuing education will involve more people enrolled in a greater variety of course and self-study options than ever before.

-- Career changes which are prompted by new scientific and technological developments will increase exponentially and each person will need re-training several times during the working career.

-- General productivity may decline because of economic and social pressures; there will be a concommitant need for worker-retraining.

-- More work-study opportunities provided by schools and cooperating businesses, more part-time work and alternating periods of full-time work and full-time study.

Technology -- Many social changes seem to be driven by technological changes. For instance, printing has shaped virtually all of man's social institutions, including the schools and the teaching-learning processes they utilize. Mankind's challenge is to obtain more control over current and future technological change and to direct this change into desireable social, political and economic avenues.

The recent decades have witnessed marvels of technological change: man has learned to live in outer space; communications technology has impacted virtually every aspect of living; information storage, retrieval and utilization has become fully automated - - and the list could go on and on. Education is being-reshaped by these technological changes and the challenge regarding educational adequacy is clear. We must find a less expensive way of teaching through better utilization and control of technology. This challenge is in due consideration of the escalating costs of delivering education which are disproportionate to the financial resources available; the declining productivity of the total education enterprise; and the persistent movement in educational politics toward even more labor-intensive delivery.

A more capital-intensive education delivery strategy would reduced costs, improve productivity and provide greater accountability, among other benefits. When machines are used in education for what they can do well, people are not economically competitive. Moreover, human productivity in education is leveling off or declining, while machine productivity is improving continuously. Within a decade, computer assisted instruction could be three times as productive at one-half the cost.

Recent and impending technological trends should be given thoughtful consideration in defining educational adequacy. Among these trends and their implications:

- There will be a continuing exponential explosion of knowledge and information.
- Information handling (storage, retrieval and processing) will become more fully automated.
- Our lives will continue to be influenced by, and to some extent controlled by, technological developments.
- Public demand will grow for more appropriate and effective learning and accountability systems.
- Much more effective use of technology will maximize pupil interest and the available learning time.
- Basic computer literacy will be the next crisis in education.
- Modes of teaching and learning will become more flexible, utilizing computer assisted multi-sensory technology and yet-to-be developed instructional processes.
- Technology should become increasingly significant in the budget for education, despite overall limitations.
- Certain lower cost technological developments such as the microcomputer will be in all educational institutions and in many of the homes before the turn of the century.
- Through developments in communication technology, a large number of

different television channels will be available on home sets for purposes such as education, shopping, news and entertainment.

- -- Mutli-channel educational programming with interactive capability and computer linkage will be more widely available.
- -- Micro-processors with video and audio capability will be more widely utilized for basic learning processes: explanation/interpretation, dialogue, inquiry and tutoring.
- -- Computerized electronic mail, computer conferencing and computer search and information processing, among other applications will optimize the use of microcomputers.

GOALS FOR ADEQUATE FUTURE SCHOOLS AND THE FEDERAL ROLE

This section of the paper purports to identify the highest priority program needs, to specify the proposed federal role in meeting these needs, and to present guidelines for financial adequacy.

Of necessity this presentation is brief. I presume that state and local education agencies will continue to bear the major financial responsibility for providing adequate education through the 1980s. Another presumption is that the financial resources provided by the federal government will not escalate dramatically; however, the ways these resources are directed and allocated may be changed.

I do not mean to downplay the state and local role in providing adequate education; obviously these roles are the most important. But the subject is too complex and too different among the states to be treated here in other than cursory ways.

The remainder of this section leans heavily on instructional goal statements generated from the previously cited instructional needs. These goals might also be thought of as standards or principles against which educational adequacy may be assessed. The discussion following each of these statements highlights the proposed federal role in addressing the goal or standard.

1. Offer one year of full-time preschool instruction for all children, ages three or four (participation optional).

The rationale for this goal is based upon the success that has been evident in a variety of early intervention programs versus the more tenuous success of compensatory education.

Because LEA's have not pursued this alternative as a high priority, the federal role shoule encourage local pilot programs, provide research and facilitate evaluation and assessment.

This goal will require a six to eight percent increase in the annual education budget. The federal role here would be that of seeking additional funds or diverting money now used for other purposes, such as compensatory education.

2. Ensure that all children receive 13 years of general education schooling, kindergarten through grade 12. Provide that some children may graduate early and that others who have special needs (handicapped, late bloomers,

working students, and others) may extend schooling to age 21.

Many schools are meeting the general intent of this goal now. Others have not fully developed their programs. The federal role regarding this goal should be to continue to direct resources toward those student groups which may not receive adequate programs without federal incentive, particularly, the handicapped, the economically deprived, the gifted and talented, and those whose native language is other than English.

3. Ensure that the K-12 curricula available to all schools includes concepts, knowledge and skills needed by citizens to participate effectively in society through the mid-twenty-first century.

This goal proposes to alter substantially the curricula of all subjects so as to reflect world society image forming process, the emerging world institutions, planetary cultures and the interdependence of these and the USA -- a large order, indeed. The major focus of the improvement effort during the 1980s could very well be social studies and literature, with other subjects to follow.

The federal role toward attaining this goal should be to strengthen and accelerate research and development in the social studies and in literature and to provide incentives for publishers and states to adopt the curricula reforms. Simultaneously, the federal government should mount a substantial assessment and evaluation development program focusing on the affective area and provide incentives for states and local schools to adopt the system.

4. Provide occupational education programs that reflect the changing world of work, its relationship to general education and occupational skill development for all students.

This goal will be attained only when all graduates are able to productively enter the labor market and become economically independent as the result of the schooling which they received. Most schools have failed to accomplish this for a variety of reasons too numerous to mention here. Suffice it to say that the continuous and substantial federal effort beginning in 1917 with the Smith-Hughes legislation and all legislation thereafter have not produced programs which are adequate as judged by the criteria above.

Several federal roles are most likely to contribute to attainment of the goal including:

a. Continue to provide financial support to states for occupational education programs.

b. Provide new financial incentive for occupational education programs in emerging new technologies, paraprofessional occupations, and in occupations previously unavailable to women, minorities and the handicapped.

c. Provide financial and other incentives to stimulate more cost-effective occupational education delivery systems: business-industry-school cooperative relationships, contracted services, work-study arrangements, and others.

d. Strengthen the occupational educational research and development program including measurement and assessment of student performance.

5. Provide expanded continuing education for out-of-school youth and adults (including senior-citizens) which maximizes the utilization of the schools resources and moves toward the community-school concept.

Most secondary schools are not providing adequate continuing education programs and only a small minority have fully utilized the program to weld a community-school concept.

A greatly strengthened federal role is indicated including:

a. Provide increased financial support to the states and LEA's, particularly for program administration and community relations.

b. Stimulate research and development, particularly on adult teaching-learning strategies and instructional materials and the needs and response strategies for senior citizens.

c. Provide financial incentives for developing and demonstrating model programs, particularly those which move the services to the client.

d. Provide financial support for measurement and evaluation.

6. Ensure that the K-12 curricula includes concepts, skills, and knowledge about the biosphere sufficient to prepare all students to live in and adapt to a changing environment and to participate responsibly with that environment.

This goal strongly indicates that the biosphere will be elevated in the curriculum to national priority status. Given the present dissarray within the curricula regarding the subject, much development needs to be done.

The federal government role in bisophere curricula development should include:

a. Establish a national center to focus on the biosphere - - facilitate linkages with all institutions which are involved in biosphere research, control and regulation.

b. Provide funding support for curriculum and staff development and provide financial and other incentives to publishers.

c. Provide funding support for learner assessment and evaluation development.

7. Facilitate grass roots educational governance systems which incorporate more scientific futures planning and management strategies, are more responsive to clients and more accountable for producing desired results.

Most school systems are beginning to move in the direction of this goal; however, very few have attained all of the goal elements.

A much strengthened federal role in attaining the goal is indicated including:

a. Facilitate national and state legislation which incorporates all elements of the goal: systematic planning and management, accountability and client participation.

b. Provide financial incentives to the states for the development of improved learner assessment instruments.

c. Provide funding support for the development of training models for elected school officials and administrators.

8. Facilitate home-school relationships which strengthen the bond and improve communciations between the home and the school thus helping to restore the confidence of citizens in the schools.

Many schools are moving toward attaining this goal while others are not yet in the arena. Much additional effort is needed.

The importance of the goal is to the survival of public education strongly suggests that the federal government needs to assume at least the following roles:

a. Develop a national program to facilitate effective home-school communications.

b. Provide financial incentives for schools to more scientifically assess the attitudes of citizens toward the schools.

c. Provide funding support for developing and demonstrating model home-school relationship programs.

d. Provide funding support for training state staffs to work more effectively with LEA's in home-school relationships.

9. Ensure that all students develop while in school life-long learning behaviors which will enable them to cope with the changing society, particuarly the technology, resources and social systems.

Many schools are moving toward this goal while others have a long way to go. The entire mission of elementary and secondary education is at stake.

The federal government has various roles in assisting schools to attain the goal, including:

a. Coordinate existing federal programs so as to maximize the contribution each can make in developing life-long learning assessment systems.

b. Provide financial support for the development of life-long learning assessment systems.

10. Maximize school improvement programs through high technology developments and thereby facilitate more cost-effective educational delivery systems.

Most school systems are playing the technology game; however, few are attaining the goal. The importance of the goal should be elevated to a national priority since it offers one of the very few avenues available for improving substantially the cost-effectiveness of schooling.

The federal roles in attaining the goal should include:

a. Provide for the use of high technology as a fundable item in all exisitng federal education programs.

b. Provide financial support for the states to develop high technology program plans, evaluate emerging new technologies, train key staff in the use of technology and evaluate program results.

c. Provide funding support for research and development regarding the use of high technology in teaching and learning.

d. Provide financial incentives for LEA's to stimulate the utilization of high technology in teaching, management and communication.

e. Consolidate and focus various existing high technology funded programs toward attainment of the goal.

CONCLUSIONS

This paper presents a framwork for assessing the adequacy of preschool, elementary and secondary education. From the assessment analysis presented, one can only conclude that current levels of expenditure are insufficient and inappropriately allocated to attain the adequacy goals identified. Furthermore, there may be disparities not identified herein, including the distribution of funds among the states.

It is evident that the key to judging educational adequacy is the extent to which each element of adequacy can be evaluated and assessed. For the most part, the elements proposed in the adequacy framework cannot be evaluated and assessed using state-of-the-art instruments and methods.

It is abundantly clear that financial adequacy is even more difficult to define, given the disparaties in resources available to local education agencies and the great variations in their needs. However, it is evident that states and local education agencies will continue to provide the major part of financial resources and that the federal government will do well to maintain its past contribution, at least in the 1980s.

Also, it appears that the inequities in and limitations of the ad valorem property tax, as the major source of educational revenues, will place a severe limitation on the educational adequacy goals that can be attained. Obviously, other sources of school revenues are needed, sources more closely attuned to the gross national product.

Past financial trends should not be used in projecting future financial needs. It will be necessary to establish new financial policies as new funding situations occur.

BIBLIOGRAPHY

Amana, R. "Education for Survival: Some Necessary Cognitive, Participative, and Perceptual Changes for America's Third Century." Phi Delta Kappan, September 1976.

Bundy, R. F. "Social Visions and Educational Futures." Phi Delta Kappan, September 1976.

Extract. Southwest Educational Development Laboratory, Austin, Texas. Various issues.

Halperin, S. The Future and Educational Governance. The George Washington University. (Paper presented at the Summer Institute of the Council of Chief State School Officers), Jeffersonville, Vermont, July 1979.

Hoyle, J.R. Urban Education 1999, Alternative Futures. Education and Urban Society, May 1981.

Kauffman, D.L. Futurism and Future Studies. National Education Association, Washington, D.C.

Shane, H.G. "America's Next 25 Years: Some Implications for Education". Phi Delta Kappan, September 1976.

Shane, H.G. "America's Educational Futures 1976-20001". The Futurist, October 1976.

Shane, H.G. "Forecast for the 80's". Today's Education, April-May 1979.

Weischadle, D.E. "Thorough and Efficient Education: School Finance Reform in New Jersey". Phi Delta Kappan, October 1978.